HISTORY

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=> d his nofil

     (FILE 'HOME' ENTERED AT 16:18:49 ON 15 DEC 2006)

     FILE 'REGISTRY' ENTERED AT 16:19:04 ON 15 DEC 2006
L*** DEL       0 S CACTTGTAAATGGTAGCGAGAAAAGCGAAGAAATAA/SQSP
L1            20 SEA ABB=ON  PLU=ON  CACTTGTAAATGGTAGCGAGAAAAGCGAAGAAATAA/SQSN
L2            44 SEA ABB=ON  PLU=ON  ACAGTACCTTTGGAAACGGTTAAAACGAATAAGAAAA/SQSN

L3             3 SEA ABB=ON  PLU=ON  TGCCCTAACGTGGACAACAA/SQSN
L4            46 SEA ABB=ON  PLU=ON  CAATTTATGGCTAGACGGTAAAC/SQSN
L5             1 SEA ABB=ON  PLU=ON  CTGCTCCCTGCAATTCAGACT/SQSN
L6             6 SEA ABB=ON  PLU=ON  CTTGCTTGAAGATCCAACTCC/SQSN

     FILE 'HCAPLUS' ENTERED AT 16:24:46 ON 15 DEC 2006
                 E STAPHYLOCOCC/CT
                 E E6+ALL
                 E E2+ALL
L7           1752 SEA ABB=ON  PLU=ON  "ENTEROTOXIN A (L) STAPHYLOCOCCAL ENTEROTOX
                 IN A"+PFT/CT OR STAPHYLOC?(3A)ENTERO?(3A)"A"
                 E NUCLEIC ACIDS+ALL/CT
                 E HYBRID/CT
                 E HYBRIDIZ/CT
                 E E5+ALL
                 E E2+ALL
L8          40563 SEA ABB=ON  PLU=ON  NUCLEIC ACID HYBRIDIZATION+PFT,NT/CT
                 E US2003-631224/APPS
L9             10 SEA ABB=ON  PLU=ON  L7 AND  (L8 OR (NUCLEIC ACID AND HYBRIDIZ?)
                 )
L10            22 SEA ABB=ON  PLU=ON  L1 OR L2
L11            27 SEA ABB=ON  PLU=ON  (L3 OR L4 OR L5 OR L6)
L12            21 SEA ABB=ON  PLU=ON  L10 AND L11

     FILE 'HCAPLUS' ENTERED AT 16:51:07 ON 15 DEC 2006

     FILE 'REGISTRY' ENTERED AT 16:51:14 ON 15 DEC 2006

     FILE 'HCAPLUS' ENTERED AT 16:51:19 ON 15 DEC 2006
L13              TRA PLU=ON  L12 1- RN :    2123 TERMS

     FILE 'REGISTRY' ENTERED AT 16:51:21 ON 15 DEC 2006
L14           2123 SEA ABB=ON  PLU=ON  L13
L15             35 SEA ABB=ON  PLU=ON  L14 AND (L1 OR L2 OR L3 OR L4 OR L5 OR L6)


     FILE 'MEDLINE, EMBASE, BIOSIS, WPIX' ENTERED AT 16:52:52 ON 15 DEC 2006
L16             57 SEA ABB=ON  PLU=ON  STAPHYLOCOC?(3A) ENTEROTOX?(3A)"A" AND
                   (HYBRIDIZ? OR HYBRIDIS?)
L17             12 SEA ABB=ON  PLU=ON  L16 AND NUCLEIC
L18             57 SEA ABB=ON  PLU=ON  L16 OR L17

     FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS, WPIX' ENTERED AT 16:56:27 ON 15
     DEC 2006
                 E CAO C/AU
L19            930 SEA ABB=ON  PLU=ON  ("CAO C"/AU OR "CAO C J"/AU OR "CAO
                 CHENG"/AU OR "CAO CHENG J"/AU OR "CAO CHENG JIANG"/AU OR "CAO
                 CHENG JING"/AU OR "CAO CHENG JUN"/AU)
                 E KHAN A/AU
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L20         15959 SEA ABB=ON  PLU=ON  KHAN A?/AU
                  E OCONNELL K/AU
L*** DEL       10 S E3,E6
                  E O CONNEL K/AU
L*** DEL        5 S E3
                  E O CONNELL K/AU
L*** DEL      218 S E3,E11,E40,E44-45
L21           228 SEA ABB=ON  PLU=ON  L*** OR L***
L22          1089 SEA ABB=ON  PLU=ON  BUCHER J?/AU
L23            17 SEA ABB=ON  PLU=ON  GOSTOMSKI M?/AU
L24          1049 SEA ABB=ON  PLU=ON  VALDES J?/AU
L25            61 SEA ABB=ON  PLU=ON  (L19 AND (L20 OR L21 OR L22 OR L23 OR
                  L24)) OR (L20 AND (L21 OR L22 OR L23 OR L24)) OR (L21 AND (L22
                  OR L23 OR L24)) OR (L22 AND (L23 OR L24)) OR (L23 AND L24)
L26         19161 SEA ABB=ON  PLU=ON  (L19 OR L20 OR L21 OR L22 OR L23 OR L24)
L27            54 SEA ABB=ON  PLU=ON  L26 AND ?ENTEROTOX?
L28           101 SEA ABB=ON  PLU=ON  L25 OR L27
L29            57 DUP REM L28 (44 DUPLICATES REMOVED)
                        ANSWERS '1-36' FROM FILE HCAPLUS
                        ANSWERS '37-44' FROM FILE MEDLINE
                        ANSWERS '45-47' FROM FILE EMBASE
                        ANSWERS '48-57' FROM FILE BIOSIS
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INVENTOR SEARCH

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=> fil hcap medline embase biosis wpix
FILE 'HCAPLUS' ENTERED AT 17:03:08 ON 15 DEC 2006
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=> d que l29
L19          930 SEA ("CAO C"/AU OR "CAO C J"/AU OR "CAO CHENG"/AU OR "CAO
                 CHENG J"/AU OR "CAO CHENG JIANG"/AU OR "CAO CHENG JING"/AU OR
                 "CAO CHENG JUN"/AU)
L20        15959 SEA KHAN A?/AU
L21          228 SEA L*** OR L***
L22         1089 SEA BUCHER J?/AU
L23           17 SEA GOSTOMSKI M?/AU
L24         1049 SEA VALDES J?/AU
L25           61 SEA (L19 AND (L20 OR L21 OR L22 OR L23 OR L24)) OR (L20 AND
                 (L21 OR L22 OR L23 OR L24)) OR (L21 AND (L22 OR L23 OR L24))
                 OR (L22 AND (L23 OR L24)) OR (L23 AND L24)
L26        19161 SEA (L19 OR L20 OR L21 OR L22 OR L23 OR L24)
L27           54 SEA L26 AND ?ENTEROTOX?
L28          101 SEA L25 OR L27
L29           57 DUP REM L28 (44 DUPLICATES REMOVED)


=> d l29 ibib abs tot

L29  ANSWER 1 OF 57  HCAPLUS  COPYRIGHT 2006 ACS on STN DUPLICATE 2
ACCESSION NUMBER:         2006:592108  HCAPLUS  Full-text
DOCUMENT NUMBER:          145:307660
TITLE:                    Real-time Fluorogenic PCR Assays for the Detection of
                          entA, the Gene Encoding Staphylococcal
                          Enterotoxin A
AUTHOR(S):                Horsmon, Jennifer R.; Cao, Cheng J.;
                          Khan, Akbar S.; Gostomski, Mark V.;
                          Valdes, James J.; O'Connell, Kevin P.
CORPORATE SOURCE:         U.S. Army Edgewood Chemical Biological Center,
                          AMSRD-ECB-RT-BM, Edgewood, MD, 21010, USA
SOURCE:                   Biotechnology Letters (2006), 28(11), 823-829
                          CODEN: BILED3; ISSN: 0141-5492
PUBLISHER:                Springer
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB    Staphylococcal enterotoxin A (SEA) is among the most potent of the growing
      list of known enterotoxins produced by Staphylococcus aureus. SEA, a 27 kDa
      monomeric protein, is encoded by the entA gene. We have developed two real-
      time fluorogenic PCR assays for the detection of nucleic acid sequences in
      entA. The assays are useful in detecting and identifying strains of S. aureus
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date not given

that produce SEA and can serve a confirmatory role in determining the presence of SEA in food samples. The assays were tested in two real-time PCR formats, using either dye-labeled DNA probes corresponding to each primer set that are degraded by the 5' exonuclease activity of Taq polymerase, or a PCR master mix that contains the DNA-binding dye SYBR Green. In both formats the assays have a limit of detection of between 1 and 13 copies of a S. aureus genome that contains a copy of entA. Neither assay cross-reacted with genomic DNA isolated from other strains of S. aureus or other species.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 2 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2006:61296 HCAPLUS Full-text
DOCUMENT NUMBER: 144:287018
TITLE: Real-time fluorogenic reverse transcription-PCR assays for detection of bacteriophage MS2
AUTHOR(S): ***O'Connell, Kevin P.; Bucher, Jennifer R.***; Anderson, Patricia E.; ***Cao, Cheng J.***; ***Khan, Akbar S.***; ***Gostomski, Mark V.***; ***Valdes, James J.***
CORPORATE SOURCE: Research and Technology Directorate, U.S. Army Edgewood Chemical Biological Center, Aberdeen Proving Ground, MD, 21010, USA
SOURCE: Applied and Environmental Microbiology (2006), 72(1), 478-483
CODEN: AEMIDF; ISSN: 0099-2240
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Bacteriophage MS2 is used in place of pathogenic viruses in a wide variety of studies that range from testing of compds. for disinfecting surfaces to studying environmental transport and fate of pathogenic viruses in groundwater. MS2 is also used as a pathogen simulant in the research, development, and testing (including open air tests) of methods, systems, and devices for the detection of pathogens in both the battlefield and homeland defense settings. PCR is often used as either an integral part of such detection systems or as a reference method to assess the sensitivity and specificity of microbial detection. To facilitate the detection of MS2 by PCR, we describe here a set of real-time fluorogenic reverse transcription-PCR assays. The sensitivity of the assays (performed with primer pairs and corresponding dye-labeled probes) ranged from 0.4 to 40 fg of MS2 genomic RNA (200 to 20,000 genome equivalent). We also demonstrate the usefulness of the primer pairs in assays without dye-labeled probe that included the DNA-binding dye SYBR green. None of the assays gave false-pos. results when tested against 400 pg of several non-MS2 nucleic acid targets.

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 3 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2005:29026 HCAPLUS Full-text
DOCUMENT NUMBER: 142:108393
TITLE: Nucleic acid primers and probes for detecting bacteriophage MS2
INVENTOR(S): ***O'Connell, Kevin P.; Khan, Akbar S.***; ***Cao, Cheng J.***; ***Bucher, Jennifer R.***; ***Gostomski, Mark V.***; ***Valdes, James J.***; Anderson, Patricia E.
PATENT ASSIGNEE(S): United States Dept. of the Army, USA
SOURCE: U.S., 16 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6841346	B1	20050111	US 2002-328226	20021223
PRIORITY APPLN. INFO.:			US 2002-383999P P	20020529

AB The present invention relates to methods and assays for detecting bacteriophage MS2 in a sample. The invention also provides nucleic acid primers for PCR reaction and probes for detecting bacteriophage MS2.
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 4 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 6
ACCESSION NUMBER: 2004:868883 HCAPLUS Full-text
DOCUMENT NUMBER: 142:50391
TITLE: A rapid and sensitive magnetic bead-based immunoassay for the detection of staphylococcal ***enterotoxin*** B for high-through put screening
AUTHOR(S): Alefantis, Tim; Grewal, Paul; Ashton, John; ***Khan, Akbar S.***; ***Valdes, James J.***; Del Vecchio, Vito G.
CORPORATE SOURCE: Vital Probes, Inc., Mayfield, PA, 18433, USA
SOURCE: Molecular and Cellular Probes (2004), 18(6), 379-382
CODEN: MCPRE6; ISSN: 0890-8508 delete ml
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Staphylococcal ***enterotoxin*** B (SEB) is one of many toxins produced by the Gram-pos. bacterium Staphylococcus aureus. While SEB is known as the causative agent of certain food poisonings it is also considered a biol. Select Agent. Thus, rapid and accurate identification of SEB during either surveillance or in response to a biothreat is critical to the mitigation of the suspect agent. This report presents an improved method for the detection of SEB based on a SEB-specific, two-antibody system where one antibody was bound to a magnetic bead particle while the other was labeled with Alexa fluor 647. The assay consisted of one incubation period for 30 min where all reagents necessary to detect SEB were included. Using this assay 100 pg of recombinant purified SEB, as well as SEB from the culture supernatant of several strains of methicillin-resistant S. aureus were detected with fidelity. This assay presents improvements over current assays in terms of a combination of the reduction in assay time length, assay sensitivity, ease of use, and application to automated high-throughput anal. Addnl., this assay can be easily modified to detect a wide range of proteins and whole organisms.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 5 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 7
ACCESSION NUMBER: 2003:706357 HCAPLUS Full-text
DOCUMENT NUMBER: 140:265762
TITLE: Selection and characterization of peptide memitopes binding to ricin
AUTHOR(S): ***Khan, Akbar S.***; Thompson, Roy; ***Cao, Cheng***; ***Valdes, James J.***
CORPORATE SOURCE: U.S. Army Edgewood Chemical and Biological Center, Aberdeen Proving Ground, MD, 21010, USA
SOURCE: Biotechnology Letters (2003), 25(19), 1671-1675
CODEN: BILED3; ISSN: 0141-5492

PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A combinatorial random peptide display library expressed in E. coli was employed to identify short, linear peptide sequences that showed affinity for ricin and could be used as reagents for detection and identification of ricin. One peptide, P3, from a collection of four short peptides showed specific binding to ricin. The kinetic anal. of this peptide binding to the ricin showed lower equilibrium binding consts. for the peptide P3 than monoclonal antibody. This is attributed due to both slower association and faster dissociation rates for the peptide P3. The random ricin peptide P3 binds to ricin with a KD of 1 μM vs. the antibody's KD of 14 nM. This particular peptide memitope P3 against ricin showed specific binding to ricin without any significant cross-reactivity against other proteins such as bovine serum albumin (BSA), lysozyme and natural bacterial toxins such as Staphylococcal ***enterotoxins*** A and B. The results provided proof-of-principal that peptide memitopes are another choice of reagents due to ease in production to be used for the detection of highly toxic bio-threat or biowarfare agents such as ricin.
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 6 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 8
ACCESSION NUMBER: 2003:427949 HCAPLUS Full-text
DOCUMENT NUMBER: 139:208967
TITLE: A simple and rapid fluorescence-based immunoassay for the detection of staphylococcal ***enterotoxin*** B
AUTHOR(S): ***Khan, Akbar S.***; ***Cao, Cheng J.***; Thompson, Roy G.; ***Valdes, James J.***
CORPORATE SOURCE: E3330/143, AMSSB-RRT, US Army Edgewood Chemical Biological Centre, MD, 21010-5424, USA
SOURCE: Molecular and Cellular Probes (2003), 17(2-3), 125-126
CODEN: MCPRE6; ISSN: 0890-8508
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The bioterrorism threat is perceived to be a real challenge to our nation's security. This threat has necessitated the design of better and faster assays for the detection of biothreat agents including staphylococcal ***enterotoxin*** B (SEB), a causative agent of food poisoning. This study describes a simple, fast and highly sensitive fluorescence-based immunoassay, in which the antibody is fluorescently-labeled for use in this assay. Use of labeled antibodies resulted in very low level of detection of SEB, 100 pg/well. This method is four times faster than classical and conventional ELISA.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 7 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 9
ACCESSION NUMBER: 2000:684515 HCAPLUS Full-text
DOCUMENT NUMBER: 134:234237
TITLE: A new model of translational control of gene expression in polycistron of AB5 ***enterotoxin***
AUTHOR(S): ***Cao, Cheng***; Li, Ping; Wang, Peng; Li, Jie-Zhi; Shi, Chen-Hua; Ma, Qing-Jun
CORPORATE SOURCE: Institute of Biotechnology, Academy of Military Medical Sciences, Beijing, 100850, Peop. Rep. China
SOURCE: Yichuan Xuebao (2000), 27(6), 549-555
CODEN: ICHPCG; ISSN: 0379-4172
PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB The expression level of the B subunit gene of cholera toxin (ctx) and E. coli heat labile toxin (ltx) is five to seven times more than that of A subunit gene. In these studies, an 80 base pair translation regulation element was found located in the structure of the A gene of both toxin operons, which consists of three translation initiation regions. Site-directed mutation of the initiation codon of TIR3 resulted in the 9-fold decrease in the expression of the downstream cistron which was translational coupled with A gene. These results indicate that translation from the A gene and translation coupling are responsible for the differential expression level of the A and B gene of AB5 *enterotoxin.*

L29 ANSWER 8 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 10
ACCESSION NUMBER: 1999:745976 HCAPLUS Full-text
DOCUMENT NUMBER: 132:232827
TITLE: Cytotoxicity of organophosphate anticholinesterases
AUTHOR(S): *Cao, C. J.*; Mioduszewski, R. J.; Menking, D. E.; *Valdes, J. J.*; Katz, E. J.; Eldefrawi, M. E.; Eldefrawi, A. T.
CORPORATE SOURCE: Department of Pharmacology and Experimental Therapeutics, University of Maryland School of Medicine, Baltimore, MD, 21201, USA
SOURCE: In Vitro Cellular & Developmental Biology: Animal (1999), 35(9), 493-500
CODEN: IVCAED; ISSN: 1071-2690
PUBLISHER: Society for In Vitro Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Organophosphate (OP) anticholinesterases were found to modulate metabolic activities of human neuroblastoma cells and hepatocytes, which was detectable by the Cytosensor microphysiometer. The nerve gas ethyl-S-2-diisopropylaminoethyl methylphosphorothiolate (VX), at 10 μM, produced significant reduction in cell metabolism within 2 min, as measured by changes in the acidification rate of the medium. The reduction was dose- and time-dependent and irreversible after 4 h of exposure. Two alkaline degradation products of VX produced no cytotoxicity. Exposure for 24 h to 3 μM VX caused 36% and 94% irreversible loss of metabolism in hepatocytes and neuroblastoma cells, resp. The insecticides parathion and chlorpyrifos stimulated hepatocyte metabolism but inhibited neuroblastoma cells. Their oxons were more active. Exposure of neuroblastoma cells for 4 h to VX, parathion, paraoxon, diisopropyl fluorophosphate or chlorpyrifos gave an LC50 of 65, 775, 640, 340, or 672 μM, resp., whereas 24 h exposure gave an LC50 of 0.7, 3.7, 2.5, 29, and 31 μM, resp. Preincubation of hepatocytes with phenobarbital enhanced their response to parathion and VX due to metabolic bioactivation. Atropine partially blocked the effects of VX and paraoxon on both cell types, which suggests the involvement of a muscarinic receptor as the target for cytotoxicity. There was no correlation between OP in vivo neurotoxicity and in vitro cytotoxicity. It is suggested that the former results from their cholinesterase inhibition, while the latter results from action on different targets and requires much higher concns.
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 9 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 11
ACCESSION NUMBER: 1999:293470 HCAPLUS Full-text
DOCUMENT NUMBER: 131:124840
TITLE: Assessment of an automated solid phase competitive

fluoroimmunoassay for benzoylecgonine in untreated urine

AUTHOR(S): ***O'Connell, Kevin P.; Valdes, James J.***; Azer, Nehad L.; Schwartz, Robert P.; Wright, Jeremy; Eldefrawi, Mohyee E.

CORPORATE SOURCE: Aberdeen Proving Ground, Research and Technology Directorate, U.S. Army Edgewood Chemical and Biological Center, Aberdeen, MD, 21010, USA

SOURCE: Journal of Immunological Methods (1999), 225(1-2), 157-169
CODEN: JIMMBG; ISSN: 0022-1759

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new solid phase fluoroimmunoassay using a fully automated flow fluorometer adapted for urinalysis of drug metabolites is described. Fluorescein-conjugated benzoylecgonine (FL-BE) and monoclonal antibodies (mAb) against benzoylecgonine (BE) were the reagents used for demonstration. The solid phase consisted of anti-BE mAbs immobilized on the surface of polymethyl methacrylate (PMMA) beads. Free BE in solution competed with FL-BE and reduced bead-bound fluorescence in a concentration-dependent manner. The binding of FL-BE to the anti-BE mAb reached steady-state within minutes. FL-BE was not bound by uncoated beads nor beads coated with non-specific proteins or IgG. The signal-to-noise ratio was 33, and the sensitivity of the assay was 2 ng ml-1 for BE. The effective concentration of BE was 1 to 100 ng ml-1, with an IC50 value of 12 ng ml-1. The mAb showed equal affinities for BE, cocaine, and cocaethylene, but a five order-of-magnitude lower affinity for ecgonine and ecgonine methylester. In a double-blind comparison using clin. urine samples, the data from this single-step competitive assay had excellent agreement with results obtained using a fiber-optic biosensor (FOB), and the EMIT assay performed com. The assay provided kinetic data rapidly and can be used to detect small analytes for which antibodies and fluorescein conjugates are available. The affinity of the mAb for FL-BE, calculated from kinetic anal. of the time course of the on and off reaction, was 2.25+10-9 M.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 10 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 12

ACCESSION NUMBER: 1998:303755 HCAPLUS Full-text

DOCUMENT NUMBER: 129:50694

TITLE: Toxicity of sea nettle toxin to human hepatocytes and the protective effects of phosphorylating and alkylating agents

AUTHOR(S): ***Cao, C. J.***; Eldefrawi, M. E.; Eldefrawi, A. T.; Burnett, J. W.; Mioduszewski, R. J.; Menking, D. E.; ***Valdes, J. J.***

CORPORATE SOURCE: Department of Pharmacology and Experimental Therapeutics, University of Maryland School of Medicine, Baltimore, MD, 21201, USA

SOURCE: Toxicon (1998), 36(2), 269-281
CODEN: TOXIA6; ISSN: 0041-0101

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The sea nettle jellyfish toxin (SNTX), which contains several polypeptides, was highly toxic to human hepatocytes. The Cytosensor microphysiometer was used continuously to monitor cell media acidification rate as an index of cellular metabolic activity. Cells exposed to > 1 μg SNTX protein/mL media exhibited a transient increase in metabolic activity, followed by a sharp decrease and cell death within minutes. The kinetics of the transient

increase and subsequent decline increased with higher concns. of SNTX. The biphasic and time-dependent response of hepatocytes to SNTX suggests that more than one mechanism may be involved in the toxicity of its different polypeptides. SNTX-induced cytotoxicity of hepatocytes was reduced by the presence of high titer antibodies against a heterologous jellyfish. Phenobarbital-induced cells became more vulnerable to SNTX, suggesting that some toxin component(s) require(s) bioactivation. Short-term exposure (1-2 h) to 10 μg/mL of the calcium ionophore calcimycin, or the non-selective monovalent cation ionophore gramicidin, had no effect on metabolic activity. However, 165 μg/mL gramicidin or 53 μg/mL calcimycin produced slight transient activation followed by steady decline in metabolic activity, while 20 h exposure to either ionophore produced total cell death. Exposure to even a 10-fold lower concentration of either ionophore killed 88% and 75%, resp. This contrasts with the toxicity of SNTX which is detectable in minutes with as little as 3 μg/mL. Since pre-exposure to the organophosphate anticholinesterases VX and paraoxon, or the chemotherapeutic alkylating agents cyclophosphamide and mechlorethamine reduced the cytotoxic effects of SNTX, it suggests that phosphorylation or alkylation of cell protein(s) interferes with SNTX toxicity.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 11 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 13

ACCESSION NUMBER: 1997:536823 HCAPLUS Full-text

DOCUMENT NUMBER: 127:215999

TITLE: Validation of the cytosensor for in vitro cytotoxicity studies

AUTHOR(S): ***Cao, C. J.***; Mioduszewski, R. J.; Menking, D. E.; ***Valdes, J. J.***; Cortes, V. I.; Eldefrawi, M. E.; Eldefrawi, A. T.

CORPORATE SOURCE: Department of Pharmacology and Experimental Therapeutics, University of Maryland School of Medicine, Baltimore, MD, 21201, USA

SOURCE: Toxicology in Vitro (1997), 11(3), 285-293
CODEN: TIVIEQ; ISSN: 0887-2333

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The Cytosensor microphysiometer was used to continuously monitor perturbations in metabolic rates of the human liver cell line ATCC-CCL-13 when exposed to each of 10 drugs. The effects of exposure to one concentration for 24 h or to sequential increasing concns. for 4 h, and recovery after drug removal, were compared. Paracetamol (acetaminophen) and ethanol were used to establish the assay protocols and determine reversibility of drug effect. All drugs produced concentration-and time-dependent reduction in acidification rate following 24 h exposure, which may be due to decreased number of viable cells and/or lowered metabolic rates of the live cells. The degree of irreversible inhibition of acidification rate was used as an index of cell death and the IC50 values for the 10 drugs were comparable to those produced in the same cell line by a fluorescence assay using Calcein AM stain ($r = 0.991$), that fluoresces only in live cells, as well as the [3H]thymidine uptake assay ($r = 0.976$). There was also excellent correlation ($r = 0.958$) between IC50 values of 24 h exposure obtained from the Cytosensor with the 10 drugs and their published human lethal blood concns. An advantage of this new methodol. over other in vitro assays is that it allows the determination of time points at which reversible change becomes irreversible.

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 12 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 14
ACCESSION NUMBER: 1996:536242 HCAPLUS Full-text
DOCUMENT NUMBER: 125:218509
TITLE: Porcine 987P glycolipid receptors on intestinal brush borders and their cognate bacterial ligands
AUTHOR(S): ***Khan, A. Salam***; Johnston, Norah C.; Goldfine, Howard; Schifferli, Dieter M.
CORPORATE SOURCE: Dep. of Pathobiology, Univ. of Pennsylvania, Philadelphia, PA, 19104, USA
SOURCE: Infection and Immunity (1996), 64(9), 3688-3693
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Certain strains of ***enterotoxigenic*** Escherichia coli adhere to piglet intestinal epithelial cells by the 987P fimbriae. The 987P fimbrial structure consists of a helical arrangement of three fimbrial proteins, namely, the major subunit FasA and two minor subunits, FasF and FasG. FasG, which is located at the fimbrial tip and at various positions along the fimbriae, mediates 987P binding to glycoprotein receptors. In this study, the authors isolated and analyzed the structure of piglet glycolipid brush border receptors and characterized their cognate ligands on the 987P fimbriae. Two major glycolipid bands recognized by 987P fimbrial probes in thin-layer chromatog. overlay assays were further purified by high-performance thin-layer chromatog. and shown to comigrate with control galactosylceramide containing hydroxylated fatty acids and with sulfatide. Their structures were confirmed by fast atom bombardment mass spectrometry, which detected homologous series of ceramide monohexoside and sulfatide with hydroxylated fatty acyl chains ranging from h16:0 to h24:0. Assembled 987P fimbriae, pre- and postassembly dissociated fimbrial subunits, and Fab fragments of specific anti-FasG, -FasF, and -FasA were used to inhibit 987P-mediated bacterial binding to the two identified piglet glycolipids and corresponding isoreceptor controls. Only assembled fimbriae and anti-FasG Fab fragments were significantly able to inhibit bacterial binding to sulfatide, indicating that in addition to glycoproteins, FasG recognizes a specific glycolipid of piglet brush borders. In contrast, only anti-FasA Fab fragments were significantly able to inhibit bacterial binding to galactosylceramide with hydroxylated fatty acids and piglet hydroxylated ceramide monohexoside indicating that FasA may determine a third type of ligand-receptor interaction in the piglet intestines. Since these bacterial adhesins recognize their resp. glycolipids receptors only after being assembled in their final fimbrial quaternary structure, adhesin binding may involve cooperative interactions and the subunits by themselves may have very low binding affinities. Alternatively, conformation-sensitive domains of these subunits present in the assembled fimbriae may be required for glycolipid binding.

L29 ANSWER 13 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 15
ACCESSION NUMBER: 1995:658572 HCAPLUS Full-text
DOCUMENT NUMBER: 123:250855
TITLE: Ordered translocation of 987P fimbrial subunits through the outer membrane of Escherichia coli
AUTHOR(S): Cao, Jiancheng; ***Khan, A. Salam***; Bayer, Manfred E.; Schifferli, Dieter M.
CORPORATE SOURCE: Dep. Pathobiol., Univ. Pennsylvania Sch. Vet. Med., Philadelphia, PA, 19104, USA
SOURCE: Journal of Bacteriology (1995), 177(13), 3704-13
CODEN: JOBAAY; ISSN: 0021-9193
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal

LANGUAGE: English

AB The 987P fimbria of ***enterotoxigenic*** Escherichia coli is a heteropolymeric structure which consists essentially of a major FasA subunit and a minor subunit, the FasG adhesin. The latter harbors the binding moiety for receptor mols. on piglet intestinal epithelial cells. In this study, anti-FasF antibody probes were developed and used to demonstrate that the FasF protein represents a new minor fimbrial component. FasF was identified in highly purified fimbriae, and its sequence demonstrated significant levels of similarity with that of FasA. Immune electron microscopy localized both the FasG and FasF proteins at the fimbrial tip as well as at broken ends and at various intervals along the fimbrial length. The presence of these minor proteins in purified 987P fimbriae was corroborated by ELISA inhibitions. Finally, the use of nonfimbriated fasG, fasF, and fasA mutants indicated that subunit translocation through the outer membrane follows a specific order, FasG being the first, FasF being the second, and FasA being the third type of exported subunit. Since fimbriae are thought to grow from the base, FasG is proposed to be a tip adhesin and FasF is proposed to be a linker mol. between the adhesin and the fimbrial shaft. Moreover, export of FasG (or FasF) in the absence of FasF (or FasA) indicates that during the process of fimbrial biogenesis in the outer membrane, translocating events precede the initiation of subunit heteropolymn.

L29 ANSWER 14 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 17

ACCESSION NUMBER: 1991:242172 HCAPLUS Full-text

DOCUMENT NUMBER: 114:242172

TITLE: Acetylcholinesterase fiber-optic biosensor for detection of anticholinesterases

AUTHOR(S): Rogers, Kim R.; ***Cao, Cheng J.***; ***Valdes, James J.***; Eldefrawl, Amira T.; Eldefrawi, Mohyee E.

CORPORATE SOURCE: Sch. Med., Univ. Maryland, Baltimore, MD, 21201, USA

SOURCE: Fundamental and Applied Toxicology (1991), 16(4), 810-20
CODEN: FAATDF; ISSN: 0272-0590

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An optical sensor for anticholinesterases (AntiChEs) was constructed by immobilizing fluorescein isothiocyanate (FITC)-tagged eel elec. organ acetylcholinesterase (AChE) on quartz fibers and monitoring enzyme activity. The pH-dependent fluorescent signal generated by FITC-AChE, present in the evanescent zone of the fiber surface, was quenched by the protons produced during acetylcholine (ACh) hydrolysis. Anal. of the fluorescence response showed Michaelis-Menten kinetics with a Kapp value of 420 μM for ACh hydrolysis. The reversible inhibitor edrophonium (0.1 mM) inhibited AChE and consequently reduced fluorescence quenching. The biosensor response immediately recovered upon its removal. The carbamate neostigmine (0.1 mM) also inhibited the biosensor response, but recovery was much slower. In the presence of ACh, the organophosphate (OP) diisopropylfluorophosphate (DFP) at 0.1 mM did not interfere with the ACh-dependent fluorescent signal quenching, but preexposure of the biosensor to DFP in the absence of ACh inhibited totally and irreversibly the biosensor response. However, the DFP-treated AChE biosensor recovered fully after a 10-min perfusion with pralidoxime (2-PAM). Echothiophate, a quaternary ammonium OP, inhibited the ACh-induced fluorescence quenching in the presence of ACh and the phosphorylated biosensor was reactivated with 2-PAM. These effects reflected the mechanism of action of the inhibitors with AChE, and the inhibition consts. obtained were comparable to those from colorimetric methods. The biosensor detected concns. of the carbamate insecticides bendiocarb and methiomyl and the OPs echothiophate and paraoxon in the nanomolar to micromolar range. Malathion,

parathion, and dicrotophos were not detected even at millimolar concns.; however, longer exposure or prior modification of these compds. (i.e., to malaoxon, paraoxon) may increase the biosensor detection limits. This AChE biosensor is fast, sensitive, reusable, and relatively easy to operate. Since the instrument is portable and can be self-contained, it shows potential adaptability to field use.

L29 ANSWER 15 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:1099644 HCAPLUS Full-text
DOCUMENT NUMBER: 145:417027
TITLE: Clostridium perfringens alpha toxoid vaccine for clostridial diseases in poultry and pigs
INVENTOR(S): Jayappa, Huchappa; ***O'Connell, Kevin***
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 21pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006233825	A1	20061019	US 2006-405198	20060417
WO 2006113772	A1	20061026	WO 2006-US14669	20060417

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2005-672289P P 20050418

AB The disclosed invention describes vaccines that comprise C. perfringens type α toxoids, antigenic fragments thereof, inactivated antigenic fragments of C. perfringens type α toxins, or any combination thereof. The invention further describes methods of using these vaccines to protect animals against clostridial diseases. Thus, vaccination of broiler hens by s.c. or i.m. route using a vaccine comprising a single C. perfringens type α toxoid results in (1) an immunogenic response in vaccinated hens; (2) anti-α toxoid antibodies in the eggs of the vaccinated broiler hens; and (3) passive protection of the subsequently born offspring of the vaccinated broiler hens. Also described are methods for providing passive protection in newborn pigs by vaccinating the pregnant sows with the C. perfringens type A α toxoid vaccines of the disclosed invention. The results showed an antibody response in sows that can be transferred to piglets through colostrum. The invention also describes methods of making these vaccines.

L29 ANSWER 16 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:1160923 HCAPLUS Full-text
TITLE: Application of Staphylococcal ***enterotoxin*** A gene as immunoadjuvant for potentiating immunogenicity

of DNA vaccine
INVENTOR(S): Ma, Qingjun; Jin, Yanwen; Xu, Quanbin; ***Cao, Cheng***
PATENT ASSIGNEE(S): Institute of Bioengineering, Academy of Millitary Medicine Science, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 14pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1853731	A	20061101	CN 2005-10068114	20050426
PRIORITY APPLN. INFO.:			CN 2005-10068114	20050426

AB The current invention relates to application of Staphylococcal ***enterotoxin*** A gene as immunoadjuvant of DNA vaccine. The recombinant Staphylococcal ***enterotoxin*** A gene expressing plasmid is shown to enhance immunogenicity of DNA vaccine or recombinant subunit vaccine. Examples are given for DNA vaccines against hepatitis B virus surface antigen and malaria multiple epitopes.

L29 ANSWER 17 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:893962 HCAPLUS Full-text
TITLE: Enhancement of immune responses to hepatitis B DNA vaccine by superantigen SEA in mice
AUTHOR(S): Jin, Yanwen; Li, Ping; Xu, Quanbin; Liu, Xuan; Huang, Wei; Wang, Yunlong; ***Cao, Cheng***; Ma, Qingjun
CORPORATE SOURCE: Beijing Institute of Biotechnology, Beijing, 100850, Peop. Rep. China
SOURCE: Shengwu Gongcheng Xuebao (2005), 21(5), 681-685 CODEN: SGXUED; ISSN: 1000-3061
PUBLISHER: Kexue Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The adjuvant effect of plasmid DNA encoding superantigen SEA (D227A) (pmSEA) on immune responses induced by HBV DNA vaccine containing HBV preS2 and S antigen in BALB/c (H-2d) was studied. BALB/c mice were immunized i.m. injection with HBV DNA vaccine (pHBVS2S) mixed with or without pmSEA plasmid. Antibodies against HBV PreS2 and S antigen in the sera were accessed by anti-HBs ELISA, and the HBsAg specific cytotoxic T lymphocytes (CTLs) activity was determined by 51Cr Release Assay. The HBs peptide-specific IFN-γ secreting T cells were detected by ELISPOT. Anti-HBs antibody titers and CTLs activity in mice immunized with pmSEA + pHBVS2S group were significant higher ($P < 0.05$) than pHBVS2S DNA vaccine group. The ratio of IgG1/IgG2a (0.282) was apparently different from the group immunized with peptide (10). Mice immunized with HBV DNA vaccine plus adjuvant produced higher titer of IgG1 and IgG2a antibodies against HBV S antigen 1.36 times and 1.73 times higher than that without adjuvant, resp. HBs peptide-specific IFN-γ secreting T cells were increased 2-3 times by the pmSEA adjuvant as compared to DNA vaccine group. HBV DNA vaccine (pHBVS2S) induces humoral and cellular immuno-responses in BALB/c mice, and the responses could be significantly boasted by the plasmid encoding mSEA. Therefore, the pmSEA is a potential adjuvant for DNA vaccines.

L29 ANSWER 18 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:221906 HCAPLUS Full-text

TITLE: IgM antibody purification and analysis by immuno-affinity chromatography
AUTHOR(S): Park, Jun T.; Arasteh, Ameneh M.; Kragl, Frank J.; Menking, Darrel; ***O'Connell, Kevin P.***; ***Valdes, James J.***
CORPORATE SOURCE: Molecular Engineering Team, US Army Edgewood Chemical Biological Center, Aberdeen Proving Ground, MD, 21010, USA
SOURCE: Abstracts of Papers, 227th ACS National Meeting, Anaheim, CA, United States, March 28-April 1, 2004 (2004), BIOT-362. American Chemical Society: Washington, D. C.
CODEN: 69FGKM
DOCUMENT TYPE: Conference; Meeting Abstract
LANGUAGE: English
AB Antibodies are the essential components in biosensors that specifically bind biol. agents, providing a capability essential to fulfilling the defense mission of Department of Defense. An IgM monoclonal antibody specific for Bacillus anthracis has been developed by John Kearney laboratory (University of Alabama at Birmingham). However, a means of purifying IgM in quantities sufficient for testing and evaluation was not readily available. IgM has a monomeric subunit structure consisting of two heavy and two light chains. However, IgM is efficiently secreted only if it is polymerized into hexamers, .apprx.900K daltons. Unlike IgG, IgM is not effectively bound by protein-A or protein-G. These properties introduce difficulties in the purification and anal. In this study, we developed an immuno-affinity chromatog. method using a goat anti-mouse IgM antibody coupled to Sepharose for quantification of IgM antibody in complex biol. samples. The affinity chromatog. was also used for IgM purification as a polishing step.

L29 ANSWER 19 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:451938 HCAPLUS Full-text
DOCUMENT NUMBER: 141:186093
TITLE: The toxicogenomics of low-level exposure to organophosphate nerve agents
AUTHOR(S): Sekowski, Jennifer Weeks; Vahey, Maryanne; Nau, Martin; Orehek, Mary Anne; Mahmoudi, Stephanie; ***Bucher, Jennifer***; Hanas, Jay; ***O'Connell, Kevin***; ***Khan, Akbar***; Horsmon, Mike; Menking, Darrel; Whalley, Christopher; Benton, Bernard; Mioduszewski, Robert; Thomson, Sandra; ***Valdes, James J.***
CORPORATE SOURCE: Edgewood Chemical Biological Center, U.S. Army RD and E Command, Aberdeen Proving Ground, MD, USA
SOURCE: NATO Science Series, Series I: Life and Behavioural Sciences (2004), 356(Toxicogenomics and Proteomics), 75-86
CODEN: NSSSC9; ISSN: 1566-7693
PUBLISHER: IOS Press
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review on the toxicogenomics of low-level exposure to organophosphate nerve agents. To date, there is a great paucity of information regarding the mol. genetic effects of low-level, but militarily significant, exposures to chemical warfare agents. Gene expression, the process whereby genes are transcribed from the DNA template into mRNA (mRNA) and then translated into the gene product (e.g., polypeptide or protein), is a highly regulated and sensitive cellular event. The internal signals that trigger induction (or repression) of gene transcription can respond within seconds to a toxic

insult. Furthermore, this process is sensitive to the degree that alteration of gene expression can occur at toxicant exposure levels far below that which cause physiol. symptoms. Most importantly, changes in gene expression have been demonstrated to precede toxicant-associated injury or disease by weeks, months, and even years. The advent of high quality DNA microarray technol. has made it possible to measure the expression level of thousands of genes simultaneously at a given time and/or dose point in a cell or tissue-based system. The use of new functional genomic techniques (such as DNA microarrays) to study the response of genes to toxic insults has created a new sub-field of toxicol. called toxicogenomics. The use of toxicogenomic approaches to study low-level exposure to chemical nerve agents and other militarily significant chems. is anticipated to greatly advance the understanding of the mol. genetic underpinnings of these types of toxic exposures and lead to the development of better detection, protection and decontamination measures.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 20 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:328279 HCAPLUS Full-text
DOCUMENT NUMBER: 140:54673
TITLE: Changes in gene expression after exposure to organophosphorus agents
AUTHOR(S): Sekowski, Jennifer W.; ***O'Connell, Kevin P.***; ***Khan, Akbar S.***; ***Valdes, James J.***; Vahey, Maryanne; Nau, Martin; Khalil, Maha; Eldefrawi, Mohyee E.
CORPORATE SOURCE: Molecular Engineering Team, Research and Technology Directorate, Edgewood Chemical Biological Center, U.S. Army Soldier Biological Chemical Command, Aberdeen Proving Ground, MD, USA
SOURCE: Alternative Toxicological Methods (2003), 413-427. Editor(s): Salem, Harry; Katz, Sidney A. CRC Press LLC: Boca Raton, Fla. CODEN: 69DVIL; ISBN: 0-8493-1528-X
DOCUMENT TYPE: Conference
LANGUAGE: English
AB Evaluation of gene expression changes caused by exposure to a compound that is directly relevant to military personnel such as chlorpyrifos. The design and implementation of toxicogenomics studies to evaluate the mol. effects of organophosphate agents and other important toxic industrial chems. and toxic industrial materials are described. The applicability of microarray technol. to identify genetic components underlying organophosphate toxicity is also described.
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 21 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:697459 HCAPLUS Full-text
DOCUMENT NUMBER: 139:256526
TITLE: Changes in gene expression after exposure to organophosphorus (OP) agents
AUTHOR(S): Sekowski, Jennifer W.; ***O'Connell, Kevin P.***; ***Khan, Akbar S.***; ***Valdes, James J.***; Vahey, Maryanne; Nau, Martin; Khalil, Maha; Eldefrawi, Mohyee E.
CORPORATE SOURCE: Molecular Engineering Team Research and Technology Directorate Edgewood Chemical Biological Center, U.S. Army Soldier Biological Chemical Command, Aberdeen Proving Ground, MD, USA

SOURCE: Alternative Toxicological Methods (2003), 413-427. Editor(s): Salem, Harry; Katz, Sidney A. CRC Press LLC: Boca Raton, Fla. CODEN: 69DVIL; ISBN: 0-8493-1528-X
DOCUMENT TYPE: Conference
LANGUAGE: English
AB Changes in gene expression caused by exposure to the organophosphate (OP) insecticide, chlorpyrifos, were investigated. The utility was demonstrated of the DNA microarray technol. to identify genetic components underlying OP toxicity. Exposure to chlorpyrifos caused alterations in the expression of 3 main functional classes of the induced genes. Within the 1st group of genes are those that code for products that participate in phosphorylation-related events, the 2nd group of induced genes contains those that participate in forming neuronal transporters and receptors, and the 3rd functional group of induced genes includes those that code for metabolic and detoxification enzymes. Induction of several of these genes persisted to (and presumably beyond) 24 h postexposure in exposed animals presenting no overt phys. symptoms.
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 22 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:614029 HCAPLUS Full-text
TITLE: Evaluation of small-scale cell culture methods and production and purification of a monoclonal antibody
AUTHOR(S): Park, Jun T.; Cork, Sarah; ***Cao, Cheng***; Coliano, Tracy; Menking, Darrel; ***O'Connell, Kevin***; ***Valdes, James J.***
CORPORATE SOURCE: Gunpowder Branch, Geo-Centers, Inc, Aberdeen Proving Ground, MD, 21010, USA
SOURCE: Abstracts of Papers, 224th ACS National Meeting, Boston, MA, United States, August 18-22, 2002 (2002), BIOT-072. American Chemical Society: Washington, D. C. CODEN: 69CZPZ
DOCUMENT TYPE: Conference; Meeting Abstract
LANGUAGE: English
AB Antibodies are the essential components in biosensors that enable the detection of target mols. or organisms with both sensitivity and selectivity. In this study, we tested three different in-vitro cell culture technologies for the small-scale production of monoclonal antibodies (Mab): gas permeable (GP) bags, Integra CELLine membrane flasks, and hollow fiber bioreactor. Performance of each technol. was evaluated by measuring the Mab productivity/mo/unit and Mab productivity/media volume The nos. of both total and viable cells in each media were measured by the Trypan Blue dye method, and antibody concentration was measured using an anal.-scale Protein-A chromatog. The productivity and cost effectiveness of each technol. was determined, and 2-L GP bags were chosen to produce 10 g of purified Mab. The final materials cost for growing the target hybridoma cell line was approx. $1.1 per mg of final antibody produced, excluding labor. Single step purification using Protein-A chromatog. will be described.

L29 ANSWER 23 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:683753 HCAPLUS Full-text
DOCUMENT NUMBER: 134:219220
TITLE: Incorporation of nanostructures and recombinant antibodies into immunoassays
AUTHOR(S): Dang, Jessica L.; Emanuel, Peter A.; Yin, Ray; Lesh, David; Lukens, Dennis; Cork, Sarah; ***Gostomski,***

Mike; Thomas, Derrick; Durst, Dupont; ***Valdes, James J.***

CORPORATE SOURCE: Gunpowder Branch, Geo-Centers, Inc., APG, MD, 21010, USA

SOURCE: Proceedings of the ERDEC Scientific Conference on Chemical and Biological Defense Research, Aberdeen Proving Ground, MD, United States, Nov. 17-20, 1998 (1999), Meeting Date 1998, 537-541. Editor(s): Berg, Dorothy A. National Technical Information Service: Springfield, Va.
CODEN: 69AJH3

DOCUMENT TYPE: Conference

LANGUAGE: English

AB The persistent threat of biol. agents to U.S. troops, supplies of food and animal feed, and civilian populations necessitates the development of a sensitive, specific, and reproducible detection system. Our goal has been to further enhance the detection capability of a hand-held immunoassay, and to incorporate these innovations into the format currently used by the U.S. Army for rapid testing in the field. These hand-held immunoassays are based on antigen recognition using a combination of bacterially expressed recombinant Fab (fragment of antigen binding) antibodies, monoclonal antibodies, or polyclonal antibodies. Immunochromatog. assays are used because they are disposable, require no training, and give a response within 15 min. Recent innovations may improve the reproducibility, sensitivity, and stability of the system. Immobilization to dendritic polymers allows for oriented coupling of antibodies along the surface of the dendrimer. Flexibility in building dendrimers in the lab permits the manipulation of coupling chemistries to achieve the goal of improving the shelf-life and sensitivity of the antibodies when used in immunoassays for biodetection.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 24 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:683746 HCAPLUS Full-text

DOCUMENT NUMBER: 134:1402

TITLE: Detection of botulinum toxin B by three solid-phase immunoassays

AUTHOR(S): Emanuel, Peter A.; ***O'Connell, Kevin***; ***Valdes, James J.***; Eldefrawi, Amira T.; Eldefrawi, Mohyee E.

CORPORATE SOURCE: Research and Technology Directorate, U. S. Army Edgewood Chemical and Biological Center, Aberdeen Proving Ground, MD, USA

SOURCE: Proceedings of the ERDEC Scientific Conference on Chemical and Biological Defense Research, Aberdeen Proving Ground, MD, United States, Nov. 17-20, 1998 (1999), Meeting Date 1998, 467-473. Editor(s): Berg, Dorothy A. National Technical Information Service: Springfield, Va.
CODEN: 69AJH3

DOCUMENT TYPE: Conference

LANGUAGE: English

AB Three immunoassays were used to detect botulinum toxin: a fluorescence fiber-optic biosensor, a microbead flow fluorometer, and a surface plasmon resonance biosensor. Each format featured a novel, recombinant anti-botulinum Fab fragment (Bot-Fab) cloned by phage display technol. The fiber-optic and microbead assays detect botulinum toxin in samples by competitive inhibition of the binding of botulinum toxin to Bot-Fab, either immobilized on quartz fibers, or in solution phase (in the microbead assay). In the BIAcore format, botulinum toxin binding to Bot-Fab immobilized on a dextran polymer caused

changes in surface plasmon resonance (SPR). Each method was rapid (minutes) and gave nanomolar Kd values for botulinum toxin-antibody binding.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 25 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:517361 HCAPLUS Full-text
DOCUMENT NUMBER: 131:333108
TITLE: Validation of the Cytosensor microphysiometer for in vitro cytotoxicity testing
AUTHOR(S): Mioduszewski, R. J.; ***Cao, C. J.***; Eldefrawi, M. E.; Eldefrawi, A. T.; Menking, D. E.; ***Valdes, J. J.***
CORPORATE SOURCE: US Army Edgewood Chemical and Biological Center (USAECBC), Research and Technology Directorate, Aberdeen Proving Ground, MD, USA
SOURCE: Toxicity Assessment Alternatives (1999), 143-153. Editor(s): Salem, Harry; Katz, Sidney A. Humana: Totowa, N. J.
CODEN: 67ZMAE
DOCUMENT TYPE: Conference
LANGUAGE: English
AB The present studies were intended as prevalidation expts. to characterize the effects of different exposure protocols and human cell types for basal cytotoxicity applications involving the Cytosensor microphysiometer. Because potential toxicants primarily affect select target organs, specific cell lines (e.g., neuronal and liver) were tested to identify characteristics of organ-specific toxicity. The data demonstrate that monitoring cellular metabolic activity of human cell lines is a reproducible and accurate yet nonspecific index of cytotoxicity for estimating the relative exposure hazards of chems. in humans. A unique feature of the Cytosensor microphysiometer is its ability to monitor cellular metabolic effects of test chemical exposure conditions continuously (including concentration and duration) as well as their reversibility. Application of the Cytosensor microphysiometer to studies of in vitro basal cytotoxicity using human cell lines could provide a rapid screen for estimating acute health hazards in humans.
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 26 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:683704 HCAPLUS Full-text
DOCUMENT NUMBER: 133:359957
TITLE: In vitro model for studying toxicity of chemical mixtures: Ethanol stimulation of acetaminophen cytotoxicity to hepatocytes
AUTHOR(S): ***Cao, Cheng J.***; Mioduszewski, Robert J.; Menking, Darrell E.; ***Valdes, James J.***; Eldefrawi, Mohyee E.; Eldefrawi, Amira T.
CORPORATE SOURCE: Dept. of Pharmacology & Experimental Therapeutics, Univ. of Maryland School of Medicine, Baltimore, MD, 21201, USA
SOURCE: Proceedings of the ERDEC Scientific Conference on Chemical and Biological Defense Research, Aberdeen Proving Ground, MD, United States, Nov. 17-20, 1998 (1999), Meeting Date 1998, 77-83. Editor(s): Berg, Dorothy A. National Technical Information Service: Springfield, Va.
CODEN: 69AJH3
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Acetaminophen (APAP) is hepatotoxic only at high doses, but low doses with moderate alc. have caused liver damage. The Cytosensor detected, within 2 min of exposure to APAP, reversible dose-dependent increases in metabolic rate of human hepatocytes. High concns., or 24 h exposure, inhibited metabolism and caused cell death. Pre-incubation with ethanol, or phenobarbital, enhanced hepatocyte responses to APAP. The in vivo antidote N-acetylcysteine and clofibrate or cholesteryl hemisuccinate reduced APAP's effects. Rapid and sensitive detection of hepatocyte metabolic changes, with induction of bioactivating enzymes and use of specific antidotes, provide a model for studying drug interactions.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 27 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:340893 HCAPLUS Full-text
DOCUMENT NUMBER: 131:140611
TITLE: Purification and analysis of recombinant human antibodies to bio-threat agents
AUTHOR(S): Dang, Jessica; Emanuel, Peter; ***Gostomski, Michael***; Menking, Darrel; Kracke, Suzanne; ***Valdes, James J.***
CORPORATE SOURCE: Geo-Centers, Inc., Rockville, MD, 20852, USA
SOURCE: Proceedings of the ERDEC Scientific Conference on Chemical and Biological Defense Research, Aberdeen Proving Ground, Md., Nov. 18-21, 1997 (1998), Meeting Date 1997, 715-722. Editor(s): Berg, Dorothy A. National Technical Information Service: Springfield, Va.
CODEN: 67QJAS
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Bacterially expressed recombinant antibodies are proving to be a valuable tool for bio-threat agent detection. The Process Engineering Facility (PEF) has developed methods for the biomanuf. and purification of these antibodies. The purification process is a two column procedure utilizing Ni-NTA affinity and ion exchange chromatog. techniques with which it is possible to obtain greater than 90% purity. This method has yielded consistent results with a variety of antibody species such as anti-cholera subunit B antigen binding fragment (Fab), anti-Yersinia F1 capsule single chain (ScFv) antibodies, and anti-botulinum neurotoxin Fab. Preliminary data from the integration of recombinant antibodies into colloidal gold-based hand held immunoassays indicates low background and high sensitivities can be obtained in a lateral flow format.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 28 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:374715 HCAPLUS Full-text
DOCUMENT NUMBER: 129:158616
TITLE: Eukaryotic cell biosensor
AUTHOR(S): Eldefrawi, Amira T.; ***Cao, Cheng J.***; Cortes, Vania I.; Mioduszewski, Robert J.; Menking, Darrel E.; ***Valdes, James J.***
CORPORATE SOURCE: Department of Pharmacology and Experimental Therapeutics, University of Maryland School of Medicine, Baltimore, MD, USA
SOURCE: Methods in Biotechnology (1998), 7(Affinity Biosensors), 223-238
CODEN: MEBIFQ
PUBLISHER: Humana Press Inc.

DOCUMENT TYPE: Journal
LANGUAGE: English
AB The technique and method of using cytosensor, a silicon-based microphysiometer system, are described.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 29 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:340818 HCAPLUS Full-text
DOCUMENT NUMBER: 131:166386
TITLE: Cytotoxicity of organophosphate anticholinesterases to human liver and nerve cells
AUTHOR(S): Mioduszewski, Robert J.; Menking, Darrel E.; ***Valdes, James J.; Cao, Cheng J.;*** Eldefrawi, Mohyee E.; Eldefrawi, Amira T.
CORPORATE SOURCE: U.S. Army Edgewood Research, Development and Engineering Center, Aberdeen Proving Ground, MD, 21010, USA
SOURCE: Proceedings of the ERDEC Scientific Conference on Chemical and Biological Defense Research, Aberdeen Proving Ground, Md., Nov. 18-21, 1997 (1998), Meeting Date 1997, 77-83. Editor(s): Berg, Dorothy A. National Technical Information Service: Springfield, Va.
CODEN: 67QJAS
DOCUMENT TYPE: Conference
LANGUAGE: English
AB Non-cholinesterase effects of organophosphate anticholinesterases were investigated using a Cytosensor microphysiometer, which continuously monitors potential cytotoxic effects of compds. on cell metabolic activity. Human neuroblastoma and liver cells exposed to organophosphate (OP) anticholinesterase (anti-ChE) chems. exhibited time and concentration-dependent cytotoxicities unrelated to their anti-ChE potencies. Exposure to the OP compound VX (3 μm for 24 h) reduced metabolic activities by 93% and 36% for nerve and liver cells, resp.; however, a 30 min exposure had no effect. However, VX (3 μm) totally inhibited ChE activities of human blood and eel elec. organ. VX breakdown products, which have no anti-ChE activities, were not cytotoxic to either cell line after 24 h exposure. The OP parathion and chloropyrifos, which have virtually no anti-ChE activity, were cytotoxic to both cell lines, especially after a 24 h exposure. Furthermore, their oxons, which are more potent anti-ChEs, were also more cytotoxic than the parent compds. Diisopropylfluorophosphate had VX-like effects on both hepatocytes and neuroblastoma cells with the latter showing the most sensitivity; possibly due to greater uptake of OP in neuroblastoma. Neuroblastoma and rat brain tissue took up 2.5 and 4.2 times, resp., the amount of DFP taken by hepatocytes.
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 30 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:340817 HCAPLUS Full-text
DOCUMENT NUMBER: 131:126558
TITLE: Human platelets: A model system to evaluate cytotoxicity
AUTHOR(S): Eldefrawi, Amira T.; ***Cao, Cheng J.;*** Eldefrawi, Mohyee E.; Christenson, Robert H.; Azzazy, Hassan M.; Mioduszewski, Robert J.; Menking, Darrel E.; ***Valdes, James J.***
CORPORATE SOURCE: Dept. of Pharmacology & Experimental Therapeutics, School of Medicine, University of Maryland Baltimore, Baltimore, MD, 21201, USA

SOURCE: Proceedings of the ERDEC Scientific Conference on Chemical and Biological Defense Research, Aberdeen Proving Ground, Md., Nov. 18-21, 1997 (1998), Meeting Date 1997, 69-75. Editor(s): Berg, Dorothy A. National Technical Information Service: Springfield, Va.
CODEN: 67QJAS
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Platelets are anucleate blood cells, present at a d. of 1-4+108 cells/mL blood. They are harvested by centrifugation of venous blood in sodium citrate tubes. Platelets require only 10 min after plating to adhere in the Cytosensor microphysiometer instead of several hours before testing which is required for all other cells. Furthermore, compared to erythrocytes, another anucleate blood cell, platelets are fairly active metabolically. The responses of platelets to paraoxon, sea nettle toxin, acetaminophen, and ATP were similar to the responses of human hepatocytes (ATCC CCL-13). The addition to the media of platelet activating factor, which causes platelet aggregation, resulted in a dose-dependent reduction in their metabolic activities. The variety of plasma membrane receptors that platelets carry allows them to respond to many chems. and release several bioactive chems., thereby providing platelets with multiple functions. A toxicant that affects them would cause allergic, inflammatory and/or immunol. reactions or affect host defense, blood fluidity or heart function. These diverse responses to agents, as well as their availability, ease of isolation and ability to rapidly adhere to the sensor surface, suggest that platelets would be valuable for evaluation of cytotoxicity of threat agents such as organophosphate anticholinesterases. Furthermore, changes in responses of platelets may serve as biomarkers of exposure to toxicants and disease states that alter their metabolic responses to specific agents.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 31 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:340815 HCAPLUS Full-text
DOCUMENT NUMBER: 131:126658
TITLE: Effect of phenobarbital induction of a human liver cell line on cytotoxicity
AUTHOR(S): ***Cao, Cheng J.***; Eldefrawi, Mohyee E.; Eldefrawi, Amira T.; Mioduszewski, Robert J.; Menking, Darrel E.; ***Valdes, James J.***
CORPORATE SOURCE: Department of Pharmacology & Experimental Therapeutics, School of Medicine, University of Maryland Baltimore, Baltimore, MD, 21201, USA
SOURCE: Proceedings of the ERDEC Scientific Conference on Chemical and Biological Defense Research, Aberdeen Proving Ground, Md., Nov. 18-21, 1997 (1998), Meeting Date 1997, 53-59. Editor(s): Berg, Dorothy A. National Technical Information Service: Springfield, Va.
CODEN: 67QJAS
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Many drugs and toxicants require bioactivation before they produce cytotoxicities. We have used a human hepatocyte cell line (ATCC CCl-13) successfully to evaluate cytotoxicities of drugs using the Cytosensor microphysiometer. However, the virtual absence of cytochrome P 450 (cyto-P 450) activity in these cells made it difficult to predict the toxicities of compds. that require bioactivation. Exposure of these cells to phenobarbital (116 μg/mL of growth media) for 72 h induced cyto-P 450 activity and increased

the cytotoxicities to several drugs and toxicants (e.g. parathion, acetaminophen and ethanol), whose toxic effects require bioactivation by the liver. Parathion became much more toxic to the induced cells and behaved like its more toxic oxygen analog paraoxon, that is highly electrophilic and a much more potent anticholinesterase. The data indicate that phenobarbital induction of human hepatocytes increases their sensitivity to toxicants that require bioactivation. It suggests that cell line induction of bioactivating enzyme should be a standard procedure in testing cell toxicity by the Cytosensor.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 32 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:677763 HCAPLUS Full-text
DOCUMENT NUMBER: 127:329551
TITLE: Receptors and ligands in adhesion and invasion of Escherichia coli
AUTHOR(S): Oelschlaeger, Tobias A.; ***Khan, A. Salam***; Meier, Cornelia; Hacker, Jorg
CORPORATE SOURCE: Institut fur Molekulare Infektionsbiologie, Universitat Wurzburg, Wurzburg, D-97070, Germany
SOURCE: Nova Acta Leopoldina (1997), 75(301, Specific Adherence Mechanisms in Microbiology and Immunology), 195-205
CODEN: NOALA4; ISSN: 0369-5034
PUBLISHER: Deutsche Akademie der Naturforscher Leopoldina
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review, with 37 refs. Escherichia coli is a normal inhabitant of the gut. However, certain variants of E. coli are able to cause either intestinal (enteritis, diarrhea, dysentery) or extra-intestinal infectious diseases (urinary tract infections, meningitis, sepsis). The very first step in establishing infections is adherence to host surfaces. This adherence is mediated by nonfimbrial and/or fimbrial adhesins. Adherence is also a prerequisite for a variety of bacterial effects on host cells as action of LT and ST ***enterotoxins***, destruction of microvilli, reorganization of the host cell cytoskeleton, etc. Intestinal E. coli strains often carry transferable plasmids with gene clusters encoding fimbrial adhesins like K88 and K99 or CFAI or II. In contrast, the fimbrial gene clusters of extra-intestinal E. coli, such as P, S, or FIC fimbriae, are located on the chromosome. Some fimbrial gene clusters of extra-intestinal E. coli are part of so-called pathogenicity islands. Expression of fimbrial genes is stringently regulated in a complex way. Thus, the expression of S fimbriae is influenced by two regulators, SfaB and SfaC, the histone-like protein H-NS and P fimbriae specific regulators. Interestingly, type 1 fimbriae, which are produced by pathogenic as well as nonpathogenic E. coli strains are regulated by the t-RNA6Leu, encoded by the leuX gene. Of special interest is the observation, that expression of S fimbriae is strongly reduced in the presence of subinhibitory concns. of antibiotics like gentamicin and trimethroprim. In addition, the presence of receptor mols. of S fimbriae interfere with S fimbrial expression. Until recently, intestinal as well as extra-intestinal E coli are thought to be extracellular pathogens. However, studies in several labs. revealed, that intestinal E. coli strains as ***enterotoxigenic***, enteropathogenic, and enterohemorrhagic (EHEC) E. coli, besides the well-known facultative intracellular enteroinvasive E. coli, are able to invade human nonprofessional phagocytes. Similarly, invasion ability was demonstrated for extra-intestinal E. coli like meningitis causing E. coli (MENEC). Internalization of bacteria might be the second step after adherence or might even occur without prior adherence. Invasion ability of EHEC and MENEC into human epithelial cells was quantified in invasion assays using gentamicin to kill extracellular bacteria. Intracellular localization was observed by

transmission electron microscopic examination of infected epithelial cells. In general, bacteria were enclosed in endosomes. The genetic basis of the invasion system(s) of extra-intestinal E. coli has only begun to be explored for MENEC. Efficient internalization of MENEC depends on OmpA, and the gene products of genes ibe 7 and ibe 10. No information is yet available about the invasion system(s) of EHEC of serotype O157:H7. However, host cell requirements for the internalization of MENEC and EHEC have been identified. Both of these E. coli strains have to interact with GlcNAc residues on the host cell surface to gain entry. Furthermore, for both, MENEC and EHEC internalization, intact microfilaments as well as intact microtubules are necessary for efficient invasion of T24 human bladder epithelial cells. Addnl., internalization of only MENEC can be inhibited by taxol, which blocks host-cell-mediated microtubule depolymn. Uptake of EHEC into some cell lines can also be inhibited by interfering with receptor-mediated endocytosis. Probable signal transduction events, involved in E. coli internalization, are currently under investigation. Present results of studies aimed to elucidate the internalization processes for EHEC and MENEC indicate that there are common themes: these E. coli recognize a GlcNAc-containing surface receptor(s) on host cells and induce an uptake pathway(s) that involves microfilaments or microfilaments and microtubules. However, invasion processes of EHEC and MENEC differ in several other respects. Even though rather complex, the understanding, on a mol. level, of the crosstalk between bacteria and their host cells, leading to adherence and/or invasion, is imperative to develop new strategies for prevention and therapy of infections caused by pathogenic Escherichia coli.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 33 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1982:560838 HCAPLUS Full-text
DOCUMENT NUMBER: 97:160838
TITLE: Rapid production of high levels of gamma interferon by human thoracic duct leukocytes stimulated with staphylococcal ***enterotoxin*** A
AUTHOR(S): Langford, Marlyn P.; Weigent, Douglas A.; Stanton, G. John; Pollard, R. B.; Fish, Jay C.; Flye, M. Wayne
CORPORATE SOURCE: Med. Branch, Univ. Texas, Galveston, TX, 77550, USA
SOURCE: Hum. Lymphokines: Biol. Immune Response Modif., [Proc. Int. Symp.], 3rd (1982), Meeting Date 1981, 155-63. Editor(s): ***Khan, Amanullah; Hill, Norwood Oakley***. Academic: New York, N. Y.
CODEN: 48KKAK
DOCUMENT TYPE: Conference
LANGUAGE: English

AB A method for the large-scale production of human γ-interferon (IFNγ) from human thoracic duct lymphocytes (TDL) is described. TDK were obtained from patients undergoing lymphocyte depletion in preparation for renal transplantation. TDL were collected once per wk for a 24 h period over 6 wk. Roller bottle cultures of TDL were prepared and stimulated with staphylococcal ***enterotoxin*** A. Culture fluid was harvested daily for 4 days, and IFNγ production peaked on day 2 and maintained high titers at day 4. The amount of IFNγ produced from a 24-h TDL collection varied from 103.2-106.5 total units and 9-4,545 units/106 TDL. IFNγ production was maintained throughout the course of lymphocyte depletion but declined after kidney transplantation. IFNα and IFNβ were not produced by TDL. Production of IFNγ from TDL is faster, requires less laboratory manipulation (e.g. erythrocyte removal), and requires samples from fewer patients than does production of IFNγ from peripheral blood leukocyte cultures.

L29 ANSWER 34 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1982:560836 HCAPLUS Full-text
DOCUMENT NUMBER: 97:160836
TITLE: Induction and augmentation of mitogen-induced lymphokine production in human PBL by Nα-desacetylthymosin α1
AUTHOR(S): Švedersky, L. P.; Hui, A.; Don, G.; Wheeler, D.; McKay, P.; May, L.; Stebbing, N.
CORPORATE SOURCE: Genentech, Inc., South San Francisco, CA, 94080, USA
SOURCE: Hum. Lymphokines: Biol. Immune Response Modif., [Proc. Int. Symp.], 3rd (1982), Meeting Date 1981, 125-33. Editor(s): ***Khan, Amanullah; Hill, Norwood Oakley.*** Academic: New York, N. Y.
CODEN: 48KKAK
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Nα-Desacetylthymosin α1 (I) induced γ-interferon, lymphotoxin, and migration inhibitory factor production by 24-h serum-free human peripheral blood lymphocyte cultures. I also enhanced γ-interferon production induced by various mitogens. I was not mitogenic at concns. used to induce the lymphokines.

L29 ANSWER 35 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1980:530358 HCAPLUS Full-text
DOCUMENT NUMBER: 93:130358
TITLE: Production and function of an inhibitor of interferon action found in mouse lymphokine preparations
AUTHOR(S): Fleischmann, W. Robert, Jr.; Lefkowitz, Elliot J.; Georgiades, Jerzy A.; Johnson, Howard M.
CORPORATE SOURCE: Med. Branch, Univ. Texas, Galveston, TX, 77550, USA
SOURCE: Interferon: Prop. Clin. Uses, [Proc. Int. Symp.] (1980), Meeting Date 1979, 195-210. Editor(s): ***Khan, Amanullah; Hill, Norwood Oakley; Dorn, Gordon L.*** Leland Fikes Found. Press: Dallas, Tex.
CODEN: 44AVA9
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Mouse lymphokine prepns. contain an inhibitor which blocks interferon action. The inhibitor was first detected in mouse spleen cell supernatant fluids 72 h after stimulation with the T-cell mitogen staphylococcal ***enterotoxin*** A. The inhibitor was also detectable in supernatant fluids of cells stimulated with concanavalin A and phytohemagglutinin P, though the kinetics of production of the inhibitor were different. Unstimulated cultures did not produce this factor. The inhibitor, purified 1000-fold by 2-step column chromatog., blocked the antiviral activity of ≤400 units of interferon. The inhibitor was resistant to digestion by trypsin, stable at pH 2, and stable at 60° for 2 h. When the inhibitor was added as late as 3 h after interferon, it blocked both the antiviral and immunoregulatory functions of interferon. Since the inhibitor blocked the function of both immune and fibroblast interferon, it may play a natural role in the regulation of the interferon system.

L29 ANSWER 36 OF 57 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1980:530300 HCAPLUS Full-text
DOCUMENT NUMBER: 93:130300
TITLE: Human immune interferon: purification and activity against a transformed human cell

AUTHOR(S): Georgiades, J. A.; Langford, M. P.; Goldstein, L. D.; Blalock, J. E.; Johnson, H. M.
CORPORATE SOURCE: Med. Branch, Univ. Texas, Galveston, TX, USA
SOURCE: Interferon: Prop. Clin. Uses, [Proc. Int. Symp.] (1980), Meeting Date 1979, 97-110. Editor(s): ***Khan, Amanullah; Hill, Norwood Oakley; Dorn, Gordon L.*** Leland Fikes Found. Press: Dallas, Tex.
CODEN: 44AVA9
DOCUMENT TYPE: Conference
LANGUAGE: English

AB A system is presented for large scale production of human immune interferon (HImIF) using peripheral lymphocytes induced with the T-cell mitogen staphylococcal ***enterotoxin*** A. The system is as efficient as that used for large-scale production of human leukocyte interferon and can be easily adapted for clin. purposes. Using a combination of adsorption, hydrophobic, and gel filtration exclusion chromatog., HImIF was purified approx. 13,800-fold to a specific activity of 106 units/mg protein. During purification, lymphotoxin and macrophage migration inhibition factor were separated from HImIF. The purified HImIF had a mol. weight of 35,000-70,000 daltons and migrated as 3 species by anal. isoelectrofocusing with isoelec. points of 4.0-4.3, 4.91-5.38, and 8.442-9.028. In vitro anticellular activity against transformed human WISH and Hep-2 cells co-purified with interferon. This HImIF activity was much more potent than that of fibroblast and leukocyte interferon. Those properties together with earlier discovered potentiation phenomenon create interesting possibilities for cancer treatment.

L29 ANSWER 37 OF 57 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2006383763 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 16760521
TITLE: Diarrheal epidemics in Dhaka, Bangladesh, during three consecutive floods: 1988, 1998, and 2004.
AUTHOR: Schwartz Brian S; Harris Jason B; ***Khan Ashraful I*** ; Larocque Regina C; Sack David A; Malek Mohammad A; Faruque Abu S G; Qadri Firdausi; Calderwood Stephen B; Luby Stephen P; Ryan Edward T
CORPORATE SOURCE: Division of Infectious Diseases, Massachusetts General Hospital, Boston, USA.. bschwartz@medicine.ucsf.edu
CONTRACT NUMBER: AI40725 (NIAID)
K01-TW07144 (FIC)
K12-HD00850 (NICHD)
U01-AI58935 (NIAID)
SOURCE: The American journal of tropical medicine and hygiene, (2006 Jun) Vol. 74, No. 6, pp. 1067-73.
Journal code: 0370507. ISSN: 0002-9637.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200607
ENTRY DATE: Entered STN: 28 Jun 2006
Last Updated on STN: 21 Jul 2006
Entered Medline: 20 Jul 2006

AB We examined demographic, microbiologic, and clinical data from patients presenting during 1988, 1998, and 2004 flood-associated diarrheal epidemics at a diarrhea treatment hospital in Dhaka, Bangladesh. Compared with non-flood periods, individuals presenting during flood-associated epidemics were older, more severely dehydrated, and of lower socioeconomic status. During flood-associated epidemics, Vibrio cholerae was the most commonly identified cause of diarrhea, and the only diarrheal pathogen whose incidence proportionally

increased in each epidemic compared with seasonally matched periods. Rotavirus was the second most frequently identified flood-associated pathogen, although the proportion of cases caused by rotavirus infection decreased during floods compared with matched periods. Other causes of diarrhea did not proportionally change, although more patients per day presented with ***enterotoxigenic*** Escherichia coli, Shigella, and Salmonella species-associated diarrhea during floods compared with matched periods. Our findings suggest that cholera is the predominant cause of flood-associated diarrheal epidemics in Dhaka, but that other organisms spread by the fecal-oral route also contribute.

L29 ANSWER 38 OF 57 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 2005366287 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 16022790
TITLE: ***Enterotoxigenic*** Escherichia coli and Vibrio cholerae diarrhea, Bangladesh, 2004.
AUTHOR: Qadri Firdausi; ***Khan Ashraful I***; Faruque Abu Syed G; Begum Yasmin Ara; Chowdhury Fahima; Nair Gopinath B; Salam Mohammed A; Sack David A; Svennerholm Ann-Mari
CORPORATE SOURCE: International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh.. fqadri@icddrb.org
CONTRACT NUMBER: UO1 AI58935 (NIAID)
SOURCE: Emerging infectious diseases, (2005 Jul) Vol. 11, No. 7, pp. 1104-7.
Journal code: 9508155. ISSN: 1080-6040.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200508
ENTRY DATE: Entered STN: 19 Jul 2005
Last Updated on STN: 9 Aug 2005
Entered Medline: 8 Aug 2005
AB Flooding in Dhaka in July 2004 caused epidemics of diarrhea. ***Enterotoxigenic*** Escherichia coli (ETEC) was almost as prevalent as Vibrio cholerae O1 in diarrheal stools. ETEC that produced heat-stable ***enterotoxin*** alone was most prevalent, and 78% of strains had colonization factors. Like V. cholerae O1, ETEC can cause epidemic diarrhea.

L29 ANSWER 39 OF 57 MEDLINE on STN DUPLICATE 16
ACCESSION NUMBER: 95012606 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 7927679
TITLE: A minor 987P protein different from the structural fimbrial subunit is the adhesin.
AUTHOR: ***Khan A S***; Schifferli D M
CORPORATE SOURCE: Department of Pathobiology, University of Pennsylvania School of Veterinary Medicine, Philadelphia 19104.
SOURCE: Infection and immunity, (1994 Oct) Vol. 62, No. 10, pp. 4233-43.
Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-L29412
ENTRY MONTH: 199411
ENTRY DATE: Entered STN: 22 Dec 1994
Last Updated on STN: 22 Dec 1994

Entered Medline: 4 Nov 1994

AB The 987P fimbriae produced by ***enterotoxigenic*** strains of Escherichia coli isolated from piglets mediate bacterial attachment to intestinal epithelial cells. These fimbriae consist essentially of a tight helical arrangement of one structural protein subunit encoded by fasA. Fimbriation and specific adhesion requires the expression of seven additional genes (fasB to fasH). In this study, we investigated whether FasA or another Fas protein, e.g., a potential minor fimbrial component, harbors the binding moiety for the pig 987P receptor glycoproteins. Fas proteins, specifically radiolabeled with an in vivo T7 expression system, were isolated from the periplasm and incubated with receptor-containing brush borders isolated from piglet intestinal epithelial cells. FasG bound best to brush borders, whereas no FasA adhered to them. Additional evidence that FasG, and not FasA, is the 987P adhesin was provided by ligand blotting inhibition assays indicating that FasG alone inhibited fimbrial binding to 987P receptors and that in the absence of FasG, other Fas proteins were not inhibitory. FasG was identified in purified fimbrial preparations with a specific anti-FasG antibody probe. Moreover, FasG was shown to be tightly associated with the fimbrial structure, since it was released only after disassembling fimbriae by heat and sodium dodecyl sulfate treatments. The primary structure of FasG, deduced from the DNA sequence, exhibited 19.1 to 24.4% similarity to FasA and large minor components and/or adhesins of other fimbriae. FasG is the first-described minor fimbrial subunit shown to be essential for both fimbrial biogenesis and specific adhesion.

L29 ANSWER 40 OF 57 MEDLINE on STN DUPLICATE 18
ACCESSION NUMBER: 79150019 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 372100
TITLE: ***Enterotoxicity*** of Escherichia coli isolated from infantile diarrhoea in rabbits and infant mice.
AUTHOR: Tewari L; Agarwal S K; ***Khan A M***; Kumar A; Mehrotra R M
SOURCE: The Indian journal of medical research, (1979 Feb) Vol. 69, pp. 231-9.
Journal code: 0374701. ISSN: 0971-5916.
PUB. COUNTRY: India
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197906
ENTRY DATE: Entered STN: 15 Mar 1990
Last Updated on STN: 15 Mar 1990
Entered Medline: 26 Jun 1979

L29 ANSWER 41 OF 57 MEDLINE on STN
ACCESSION NUMBER: 2005548724 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 16225051
TITLE: Presence of neutral fat in stool and its association with aetiology and presenting features of diarrhoea in children.
AUTHOR: Chowdhury F; ***Khan A I***; Hossain M I; Malek M A; Faruque A S G
CORPORATE SOURCE: Clinical Sciences Division, ICDDR,B: Centre for Health and Population Research, Bangladesh.
SOURCE: Tropical gastroenterology : official journal of the Digestive Diseases Foundation, (2005 Apr-Jun) Vol. 26, No. 2, pp. 80-4.
Journal code: 8107122. ISSN: 0250-636X.
PUB. COUNTRY: India
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200512
ENTRY DATE: Entered STN: 18 Oct 2005
Last Updated on STN: 18 Dec 2005
Entered Medline: 13 Dec 2005

AB Enteric infections, impaired digestion, loss of villous cells, and poor absorption of fat may lead to presence of neutral fat in stool, particularly in children with diarrhoea. We aimed to examine the association between presence of neutral fat in stool and aetiology of diarrhoea and nutritional status of the patients at different age groups. A total of 13,171 patients aged 5 days-106 years enrolled in the Diarrhoeal Disease Surveillance System of the Dhaka Hospital of ICDDR,B during 1996-2001 were studied. Presence of neutral fat in faecal specimens, aetiology of diarrhoea, and nutritional status in children below 5 years of age were determined and analysed. Of the total study individuals, 7,671 (58%) had neutral fat in their faecal specimens. Neutral fat was more frequently present in faeces of individuals infected with rotavirus in all age groups or in ***enterotoxigenic*** E. coli (ETEC) infection in children 0-23 months old while compared with those who did not have these infections ($p=0.005$, $p=0.014$, respectively). Neutral fat was less frequently ($p<0.001$) present in malnourished 0-23 months old children. Presence of neutral fat in the stool in diarrhoea due to rotavirus and in young childhood ETEC diarrhoea signifies compromised gastrointestinal function due to these infections. The mechanism of persistence of neutral fat in the stool of such patients, and its nutritional and clinical implications require further studies.

L29 ANSWER 42 OF 57 MEDLINE on STN
ACCESSION NUMBER: 95058362 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 7968674
TITLE: Construction of mutant genes for a non-toxic verotoxin 2 variant (VT2vp1) of Escherichia coli and characterization of purified mutant toxins.
AUTHOR: ***Cao C***; Kurazono H; Yamasaki S; Kashiwagi K; Igarashi K; Takeda Y
CORPORATE SOURCE: Department of Microbiology, Faculty of Medicine, Kyoto University, Japan.
SOURCE: Microbiology and immunology, (1994) Vol. 38, No. 6, pp. 441-7.
Journal code: 7703966. ISSN: 0385-5600.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199412
ENTRY DATE: Entered STN: 10 Jan 1995
Last Updated on STN: 10 Jan 1995
Entered Medline: 20 Dec 1994

AB The gene encoding a Verotoxin 2 variant, VTvp1, was mutated by oligonucleotide-directed site-specific mutagenesis. Among 6 mutant toxins encoded by the mutated genes, E167Q-R170L (glutamic acid at position 167 and arginine at position 170 from N-terminus of the A subunit were replaced by glutamine and leucine, respectively) was found to have markedly decreased activities; inhibition of protein synthesis, Vero cell cytotoxicity and mouse lethality of the purified E167Q-R170L were 1/1,900, 1/125,000 and 1/2,000, respectively, of those of the purified wild-type VT2vp1. Since the antigenic property of the E167Q-R170L was demonstrated to be similar to that of the wild-type VT2vp1 by Ouchterlony double gel diffusion test and by

neutralization test of Vero cell cytotoxicity of the VT2vp1, a possibility to use the mutant VT2vp1, E167Q-R170L, as a toxoid is discussed.

L29 ANSWER 43 OF 57 MEDLINE on STN
ACCESSION NUMBER: 95058361 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 7968673
TITLE: Specific detection of a verotoxin 2 variant, VT2vp1, by a bead-enzyme-linked immunosorbent assay.
AUTHOR: *Cao C*; Yamasaki S; Lin Z; Kurazono H; Takeda Y
CORPORATE SOURCE: Department of Microbiology, Faculty of Medicine, Kyoto University, Japan.
SOURCE: Microbiology and immunology, (1994) Vol. 38, No. 6, pp. 435-40.
Journal code: 7703966. ISSN: 0385-5600.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199412
ENTRY DATE: Entered STN: 10 Jan 1995
Last Updated on STN: 10 Jan 1995
Entered Medline: 20 Dec 1994

AB A bead-enzyme-linked immunosorbent assay to specifically detect a Verotoxin 2 variant, VT2vp1, was developed. The sensitivity of the bead-ELISA was 200 pg/ml of the purified VT2vp1 and it did not react with 20 ng/ml of the purified VT2. The specificity of the bead-ELISA was examined with 107 strains of Verocytotoxin-producing Escherichia coli that include VT1-, VT2-, VT2vha-, VT2vhb- and VT2vp1-producing E. coli, and only VT2vp1-producing E. coli that were confirmed by VT2vp1-specific polymerase chain reaction gave positive results. It was noted that all 58 VT2vp1-producing E. coli strains were from pigs, but not from cows and humans.

L29 ANSWER 44 OF 57 MEDLINE on STN
ACCESSION NUMBER: 91355790 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 2103408
TITLE: Causative agents of acute diarrhoea in the first 3 years of life: hospital-based study.
AUTHOR: Mubashir M; *Khan A*; Baqai R; Iqbal J; Ghafoor A; Zuberi S; Burney M I
CORPORATE SOURCE: Pakistan Medical Research Council, Central Research Centre, National Institute of Health, Islamabad.
SOURCE: Journal of gastroenterology and hepatology, (1990 May-Jun) Vol. 5, No. 3, pp. 264-70.
Journal code: 8607909. ISSN: 0815-9319.
PUB. COUNTRY: Australia
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199110
ENTRY DATE: Entered STN: 27 Oct 1991
Last Updated on STN: 27 Oct 1991
Entered Medline: 10 Oct 1991

AB During the 2 years of the study, 402 patients and an equal number of age- and sex-matched controls were investigated for the presence of diarrhoeal pathogens. Pathogenic organisms were recovered from 277 (68.9%) patients and 97 (24.1%) controls. In the patient group, possible bacterial pathogens were found in 210 (52.2%) cases. Enteropathogenic Escherichia coli (EPEC) was the most frequently found potential pathogen, being recovered in 132 cases (32.8%)

with serotypes 026, 086, 0111 and 0124 being the most frequently identified. Other bacterial pathogens identified were ***enterotoxigenic*** E. coli (ETEC) 57 (14.2%), Shigella 13 (3.2%) and Salmonella eight (2%). Rotavirus was identified in 33 (8.2%) cases. Mixed bacterial and viral infections were also seen in 26 (6.5%) cases. In the control group, enteric pathogens were recovered from 97 (24.1%) specimens. The most common bacterial pathogen found in this group was again EPEC (40, 9.9%), with serogroups 018, 044, 0111 and 0126 being the most frequent. Giardia lamblia and Entamoeba histolytica were found in 31 (7.7%) and 10 (2.5%) controls, respectively. Rotavirus was found in 16 (4%) controls. The results of both centres where the study was performed (Karachi and Rawalpindi) were compared.

L29 ANSWER 45 OF 57 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 19

ACCESSION NUMBER: 79157415 EMBASE Full-text
DOCUMENT NUMBER: 1979157415
TITLE: Prevalence of Escherichia coli serotypes enteropathogenic to man at Lucknow.
AUTHOR: Tewari L.; Agarwal S.K.; ***Khan A.M.***; et al.
CORPORATE SOURCE: Upgraded Dept. Pathol. Bacteriol., K.G. Med. Coll., Lucknow, India
SOURCE: Indian Journal of Medical Research, (1979) Vol. 69, No. 2, pp. 225-230. .
CODEN: IJMRAQ
COUNTRY: India
DOCUMENT TYPE: Journal
FILE SEGMENT: 004 Microbiology
LANGUAGE: English
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L29 ANSWER 46 OF 57 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2003483501 EMBASE Full-text
TITLE: Shiga toxin producing Escherichia coli infection: Current progress & future challenges.
AUTHOR: ***Khan A.***; Datta S.; Das S.C.; Ramamurthy T.; Khanam J.; Takeda Y.; Bhattacharya S.K.; Nair G.B.
CORPORATE SOURCE: Dr. G.B. Nair, Laboratory Sciences Division, Intl. Ctr. Diarrhoeal Dis. Res., Mohakhali, Dhaka 1212, India. gbnair@icddrb.org
SOURCE: Indian Journal of Medical Research, (2003) Vol. 117, No. JULY, pp. 1-24. .
Refs: 225
ISSN: 0971-5916 CODEN: IMIREV
COUNTRY: India
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 004 Microbiology
017 Public Health, Social Medicine and Epidemiology
005 General Pathology and Pathological Anatomy
052 Toxicology
029 Clinical Biochemistry
038 Adverse Reactions Titles
037 Drug Literature Index
030 Pharmacology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 11 Dec 2003
Last Updated on STN: 11 Dec 2003

AB Shiga toxin producing Escherichia coli (STEC) is a newly emerged pathogen that has been the focus of immense international research effort driven by its recognition as a major cause of large scale epidemics and thousands of sporadic cases of gastrointestinal illness. It produces a severe bloody diarrhoea that is clinically distinct from other types of diarrhoeal diseases caused by other enteric pathogens. One of the most important areas of current exploration concerns how STEC enters our food chain, an investigational avenue that begins with the ecology of STEC in animals and in the environment. A variety of foods have been identified as vehicles of STEC-associated illness and this makes the organism one of the most serious threats to the food industry in recent years. The pathogenesis of STEC is multifactorial and involves several levels of interaction between the bacterium and the host. STEC strains carry a set of virulence genes that encode the factors for attachment to host cells, elaboration of effective molecules and production of two different types of Shiga toxins. These genes are found in the locus of enterocyte effacement (LEE), lamboid phages, and a large virulence associated plasmid. The publication of the complete genome sequence of Esch. coli O157:H7 chromosome offers a unique resource that will help to identify additional virulence genes, to develop better methods of strain detection and in the understanding of the evolution of Esch. coli through comparison with the genome of the non-pathogenic laboratory strain Esch. coli K-12. These research efforts in turn, should lead to development of new potent and cost effective anti-Stx therapies or vaccines and thereby major improvement in human health world-wide.

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ACCESSION NUMBER: 2002090474 EMBASE Full-text
TITLE: Public health assessment of potential biological terrorism agents.
AUTHOR: Rotz L.D.; ***Khan A.S.***; Lillibridge S.R.; Ostroff S.M.; Hughes J.M.
CORPORATE SOURCE: L.D. Rotz, Natl. Center for Infectious Diseases, Mailstop C18, 1600 Clifton Road, Atlanta, GA 30333, United States. ler8@cdc.gov
SOURCE: Emerging Infectious Diseases, (2002) Vol. 8, No. 2, pp. 225-230. .
Refs: 32
ISSN: 1080-6040 CODEN: EIDIFA
COUNTRY: United States
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 004 Microbiology
017 Public Health, Social Medicine and Epidemiology
LANGUAGE: English
ENTRY DATE: Entered STN: 28 Mar 2002
Last Updated on STN: 28 Mar 2002
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L29 ANSWER 48 OF 57 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:390976 BIOSIS Full-text
DOCUMENT NUMBER: PREV200600391526
TITLE: Clinical aspects of bioterrorism (Anthrax, plague and smallpox).
AUTHOR(S): Rokusz, Laszlo [Reprint Author]
CORPORATE SOURCE: Hungarian Def Forces, Cent Mil Hosp, Budapest, Hungary
SOURCE: Berencsi, G [Editor]; ***Khan, AS*** [Editor]; Halouzka, J [Editor]. (2005) pp. 136-145. Emerging Biological Threats.

Publisher: I O S PRESS, NIEUWE HEMWEG 6B, 1013 BG AMSTERDAM, NETHERLANDS. Series: NATO SCIENCE SERIES, SUB-SERIES I: LIFE AND BEHAVIOURAL SCIENCES.
Meeting Info.: NATO Advanced Research Workshop on Emerging Biological Threat. Budapest, HUNGARY. October 05 -08, 2003. NATO.
ISSN: 1566-7693. ISBN: 1-58603-555-X(H).

DOCUMENT TYPE: Book; (Book Chapter)
Conference; (Meeting)
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Aug 2006
Last Updated on STN: 9 Aug 2006

AB The consideration of biological warfare has moved from the conventional military theatre to a terrorist operated bioterrorism event that's puts millions of people in cities across the globe under the threat of artificially acquired, life threatening infectious disease scenario. Biological warfare diseases arc likely to present as one of a a limited number of clinical syndromes. Plague, Staphylococcal ***Enterotoxin*** B and tularemia may present as pneumonia. Unfortunately many biological warfare diseases (Venezuelan Equine encephalitis. Q-fever, Brucellosis) may present as fever of unknown origin (FUO). Moreover. other diseases (anthrax, plague, tularaemia, smallpox) have undifferentiated febrile prodromes. Physicians must be able to identify early victims and recognize patterns of disease. The speaker will cover the clinical aspects of three most important infectious diseases caused by biological warfare agents: anthrax, plague and smallpox.Recognition of need for local, regional, and national preparedness for threat against bioterrorism provides an opportunity to enhance the public health system and its linkages with current and new partners.

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ACCESSION NUMBER: 2006:390972 BIOSIS Full-text
DOCUMENT NUMBER: PREV200600391522
TITLE: Biological toxins and super-antigens as an emerging biological threat.
AUTHOR(S): ***Khan, Akbar S.*** [Reprint Author]; ***Valdes, Jarnes***
CORPORATE SOURCE: CBM, DTRA, 8725 John J Kingman Rd,MS 6201, Ft Belvoir, VA 22060 USA
akbar.khan1@us.army.mil
SOURCE: Berencsi, G [Editor]; ***Khan, AS*** [Editor]; Halouzka, J [Editor]. (2005) pp. 104-108. Emerging Biological Threats.
Publisher: I O S PRESS, NIEUWE HEMWEG 6B, 1013 BG AMSTERDAM, NETHERLANDS. Series: NATO SCIENCE SERIES, SUB-SERIES I: LIFE AND BEHAVIOURAL SCIENCES.
Meeting Info.: NATO Advanced Research Workshop on Emerging Biological Threat. Budapest, HUNGARY. October 05 -08, 2003. NATO.
ISSN: 1566-7693. ISBN: 1-58603-555-X(H).
DOCUMENT TYPE: Book; (Book Chapter)
Conference; (Meeting)
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Aug 2006
Last Updated on STN: 9 Aug 2006

AB The current revolution in biology especially genomics and proteomics. has identified genes encoding tor new biological toxins and super-antigens. There is growing concern within both scientific defense and intelligence communities that this constitutes a serious potential for misuse as offensive biological

weapons. Currently, sequences of close to 50 microbial genomes have been completed and the sequences of more than 100 genomes should be completed within the next 2 to 5 years. These sequences will encode a collection of > 200.000 predicted coding sequences which will code for important functional proteins, as well as potential new biological toxins and super-antigens. Completed sequences of microbial genomes provide an excellent Source to study the physiology and evolution of microbial species and expands our ability to better assign functions to the newly predicted coding sequence. Comparative analysis of sequences for multiple genomes will provide Substantially more information on the emerging and re-emerging, new biological toxins and superantigens, and this information will be very valuable in the discovery of new signature sequences to enhance bio-detection, protection and treatment. A model comparative analysis using the complete genome sequence of an M1 strain of Streptococcus pyogenes, also known as group A streptococci (GAS) which is a strict human pathogen with no other known reservoir pr affected species will be discussed.

L29 ANSWER 50 OF 57 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:390974 BIOSIS Full-text
DOCUMENT NUMBER: PREV200600391524
TITLE: Development of reagent kits for detection of lethal toxins.
AUTHOR(S): Faludi, Gabor [Reprint Author]; Jankovics, Istvan; Visontai, Ildiko; Sarkadi, Julia; Zelenka, Gyongyi
SOURCE: Berencsi, G [Editor]; ***Khan, AS*** [Editor]; Halouzka, J [Editor]. (2005) pp. 117-121. Emerging Biological Threats.
Publisher: I O S PRESS, NIEUWE HEMWEG 6B, 1013 BG AMSTERDAM, NETHERLANDS. Series: NATO SCIENCE SERIES, SUB-SERIES I: LIFE AND BEHAVIOURAL SCIENCES.
Meeting Info.: NATO Advanced Research Workshop on Emerging Biological Threat. Budapest, HUNGARY. October 05 -08, 2003. NATO.
ISSN: 1566-7693. ISBN: 1-58603-555-X(H).
DOCUMENT TYPE: Book; (Book Chapter)
Conference; (Meeting)
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Aug 2006
Last Updated on STN: 9 Aug 2006

AB The "mysterious world of toxins" is connected not only to the force protection of military units, but also to our normal civil life. Several historical examples are important steps of our learning on microbial toxins. The illnesses caused by food poisoning during the last 5 years in Hungary are briefly mentioned [1,2]. Possible threat of emerging microorganisms has to be also taken into account. The demand for rapid detection has initiated the local development of reagents for the rapid detection of RICIN and S. aureus ***enterotoxin*** B. Emerging bioterrorism has to be coped by networks of military and civil laboratory facilities to be prone in preventing biological disasters.

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ACCESSION NUMBER: 2006:158926 BIOSIS Full-text
DOCUMENT NUMBER: PREV200600154386
TITLE: IGM antibody purification and analysis by immuno-affinity chromatography.
AUTHOR(S): Park, Jun T. [Reprint Author]; Arasteh, Ameneh M.; Kragl, Frank J.; Menking, Darrel; ***O'Connell, Kevin P.***;

Valdes, James J.
CORPORATE SOURCE: USA, Edgewood Chem Biol Ctr, Mol Engn Team, Aberdeen Proving Ground, MD 21010 USA
jun.park@us.army.mil
SOURCE: Abstracts of Papers American Chemical Society, (MAR 28 2004) Vol. 227, No. Part 1, pp. U246.
Meeting Info.: 227th National Meeting of the American-Chemical Society. Anaheim, CA, USA. March 28 -April 01, 2004. Amer Chem Soc.
CODEN: ACSRAL. ISSN: 0065-7727.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Mar 2006
Last Updated on STN: 9 Mar 2006

L29 ANSWER 52 OF 57 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2003:220903 BIOSIS Full-text
DOCUMENT NUMBER: PREV200300220903
TITLE: Gene expression changes following low-level exposure to sarin (GB) vapor.
AUTHOR(S): Sekowski, J. W.; ***Bucher, J. R.***; Menking, D.; ***Valdes, J. J.***; Mioduszewski, R.; Thomson, S.; Whalley, C. E.; Vahey, M. [Reprint Author]; Nau, M. [Reprint Author]
CORPORATE SOURCE: ECBC, APG-EA, US Army SBCCOM, Aberdeen Proving Ground, MD, USA
SOURCE: Toxicological Sciences, (March 2003) Vol. 72, No. S-1, pp. 163. print.
Meeting Info.: 42nd Annual Meeting of the Society of Toxicology. Salt Lake City, Utah, USA. March 09-13, 2003. Society of Toxicology.
ISSN: 1096-6080 (ISSN print).
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 7 May 2003
Last Updated on STN: 7 May 2003

L29 ANSWER 53 OF 57 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:490299 BIOSIS Full-text
DOCUMENT NUMBER: PREV200200490299
TITLE: Evaluation of small scale cell culture methods and production and purification of a monoclonal antibody.
AUTHOR(S): Park, Jun T. [Reprint author]; Cork, Sarah [Reprint author]; ***Cao, Cheng***; Coliano, Tracy; Menking, Darrel; ***O'Connell, Kevin***; ***Valdes, James J.***
CORPORATE SOURCE: Gunpowder Branch, Geo-Centers, Inc, P.O. Box 68, Aberdeen Proving Gro, MD, 21010, USA
jun.park@sbccom.apgea.army.mil
SOURCE: Abstracts of Papers American Chemical Society, (2002) Vol. 224, No. 1-2, pp. BIOT 72. print.
Meeting Info.: 224th National Meeting of the American Chemical Society. Boston, MA, USA. August 18-22, 2002.
CODEN: ACSRAL. ISSN: 0065-7727.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English
ENTRY DATE: Entered STN: 18 Sep 2002
Last Updated on STN: 18 Sep 2002

L29 ANSWER 54 OF 57 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:334756 BIOSIS Full-text
DOCUMENT NUMBER: PREV200000334756
TITLE: Involvement of muscarinic acetylcholine receptor (mAchR) in cytotoxicity of an organophosphate anticholinesterase, diisopropylfluorophosphate (DFP).
AUTHOR(S): ***Cao, C. J.*** [Reprint author]; Mioduszewski, R. J.; Menking, D. E.; Eldefrawi, A. T. [Reprint author]; ***Valdes, J. J.***
CORPORATE SOURCE: Dept. of Pharm. and Exp. Therap., University of Maryland School of Medicine, 655 W. Baltimore Street, Baltimore, MD, 21201, USA
SOURCE: In Vitro Cellular and Developmental Biology Animal, (March, 2000) Vol. 36, No. 3 Part 2, pp. 50.A. print.
Meeting Info.: Meeting of the Society for In Vitro Biology World Congress on In Vitro Biology. San Diego, California, USA. June 10-15, 2000.
ISSN: 1071-2690.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Aug 2000
Last Updated on STN: 7 Jan 2002

L29 ANSWER 55 OF 57 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1999:452684 BIOSIS Full-text
DOCUMENT NUMBER: PREV199900452684
TITLE: Validation of the cytosensorTM microphysiometer for in vitro cytotoxicity testing.
AUTHOR(S): Mioduszewski, R. J. [Reprint author]; ***Cao, C. J.***; Eldefrawi, M. E.; Eldefrawi, A. T.; Menking, D. E.; ***Valdes, J. J.***
CORPORATE SOURCE: Research and Technology Directorate, US Army Edgewood Chemical and Biological Center (USAECBC), Aberdeen Proving Ground, MD, USA
SOURCE: Salem, H. [Editor]; Katz, S. A. [Editor]. (1999) pp. 143-153. Toxicity assessment alternatives: Methods, issues, opportunities. print.
Publisher: Humana Press Inc., Suite 808, 999 Riverview Drive, Totowa, New Jersey 07512, USA.
ISBN: 0-89603-787-8.
DOCUMENT TYPE: Book
Book; (Book Chapter)
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Oct 1999
Last Updated on STN: 3 May 2000

L29 ANSWER 56 OF 57 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1998:328231 BIOSIS Full-text
DOCUMENT NUMBER: PREV199800328231
TITLE: Eukaryotic cell biosensor. The Cytosensor microphysiometer.
AUTHOR(S): Eldefrawi, Amira T. [Reprint author]; ***Cao, Cheng J.*** [Reprint author]; Cortes, Vania I.; Mioduszewski, Robert

J.; Menking, Darrel E.; ***Valdes, James J.***
CORPORATE SOURCE: Dep. Pharmacol. Exp. Therapeutics, Univ. Md. Sch. Med., Baltimore, MD, USA
SOURCE: Rogers, K. R. [Editor]; Mulchandani, A. [Editor]. (1998) pp. 223-238. Methods in Biotechnology; Affinity biosensors: Techniques and protocols. print.
Publisher: Humana Press Inc., Suite 808, 999 Riverview Drive, Totowa, New Jersey 07512, USA. Series: Methods in Biotechnology.
ISBN: 0-89603-539-5.
DOCUMENT TYPE: Book
Book; (Book Chapter)
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Aug 1998
Last Updated on STN: 12 Aug 1998

L29 ANSWER 57 OF 57 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1979:239632 BIOSIS Full-text
DOCUMENT NUMBER: PREV197968042136; BA68:42136
TITLE: ENTERO TOXICITY OF ESCHERICHIA-COLI ISOLATED FROM INFANTILE DIARRHEA IN RABBITS AND INFANT MICE.
AUTHOR(S): TEWARI L [Reprint author]; AGARWAL S K; ***KHAN A M***; KUMAR A; MEHROTRA R M L
CORPORATE SOURCE: DEP PATHOL, KING GEORGE MED COLL, LUCKNOW, UP, INDIA
SOURCE: Indian Journal of Medical Research, (1979) Vol. 69, No. FEB, pp. 231-239.
CODEN: IJMRAQ. ISSN: 0019-5340.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB Serotypes (40) belonging to enteropathogenic E. coli groups, isolated from infantile [human] diarrheal cases, were tested for their ***enterotoxicity*** in adult rabbits and infant mice. ***Enterotoxins*** prepared by 4 different methods were used. Most chloroform-killed suspension preparations of ***enterotoxin*** gave maximum positivity results in the rabbit ileal loop model (82.5%) and the infant mouse model (55.0%), followed by the saline-suspension method of ***enterotoxin*** preparation (72.5% and 50.0%, respectively). Soft agar culture and peptone water methods of ***enterotoxin*** preparation gave least satisfactory results on ***enterotoxicity*** tests in both animal models. The rabbit ileal loop method is a very reliable method for ***enterotoxicity*** tests, with minimum drawbacks. The infant mouse method is very easy to perform and less time consuming, and infant mice are easily available.

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=> d que l15
L1            20 SEA FILE=REGISTRY ABB=ON  PLU=ON  CACTTGTAAATGGTAGCGAGAAAAGCGAA
                 GAAATAA/SQSN
L2            44 SEA FILE=REGISTRY ABB=ON  PLU=ON  ACAGTACCTTTGGAAACGGTTAAAACGAA
                 TAAGAAAA/SQSN
L3             3 SEA FILE=REGISTRY ABB=ON  PLU=ON  TGCCCTAACGTGGACAACAA/SQSN
L4            46 SEA FILE=REGISTRY ABB=ON  PLU=ON  CAATTTATGGCTAGACGGTAAAC/SQSN

L5             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  CTGCTCCCTGCAATTCAGACT/SQSN
L6             6 SEA FILE=REGISTRY ABB=ON  PLU=ON  CTTGCTTGAAGATCCAACTCC/SQSN
L10           22 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L1 OR L2
L11           27 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L3 OR L4 OR L5 OR L6)
L12           21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 AND L11
L13              TRANSFER  PLU=ON  L12 1- RN :    2123 TERMS
L14         2123 SEA FILE=REGISTRY ABB=ON  PLU=ON  L13
L15           35 SEA FILE=REGISTRY ABB=ON  PLU=ON  L14 AND (L1 OR L2 OR L3 OR
                 L4 OR L5 OR L6)


=> d l15 rn cn sql kwic nte lc tot

L15  ANSWER 1 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   915245-86-2  REGISTRY
CN   INDEX NAME NOT YET ASSIGNED
SQL  702

SEQ    351 tcgattgacc gaagagaaaa aagtgccgat caatttatgg ctagacggta
                                           ========== ==========
       401 aacaaaatac agtacctttg gaaacggtta aaacgaataa gaaaaatgta
           ===     == ========== ========== ========== =====
HITS AT:   381-403, 409-445
LC   STN Files:   CAPLUS
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L15  ANSWER 2 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   910067-69-5  REGISTRY
CN   27: PN: CN1818066 SEQID: 4 unclaimed DNA (9CI)  (CA INDEX NAME)
SQL  699

SEQ    351 tcgattgacc gaagagaaaa aagtgccgat caatttatgg ctagacggta
                                           ========== ==========
       401 aacaaaatac agtacctttg gaaacggtta aaacgaataa gaaaaatgta
           ===     == ========== ========== ========== =====
HITS AT:   381-403, 409-445
LC   STN Files:   CA, CAPLUS, TOXCENTER

L15  ANSWER 3 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   910065-92-8  REGISTRY
CN   DNA (synthetic Clostridium botulinum toxin A fusion with Staphylococcus
     aureus enterotoxin A fusion with Staphylococcus aureus enterotoxin B.
     .

SEQ   1951 ccgatcaatt tatggctaga cggtaaacaa aatacagtac ctttggaaac
                =====  ========== ========      ======= ==========
      2001 ggttaaaacg aataagaaaa atgtaactgt tcaggagttg gatcttcaag
           ========== ==========
HITS AT:   1956-1978, 1984-2020
LC   STN Files:   CA, CAPLUS, TOXCENTER

L15  ANSWER 4 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   895213-43-1  REGISTRY
CN   11: PN: CN1718730 SEQID: 8 unclaimed DNA (9CI)  (CA INDEX NAME)
SQL  729

SEQ    351 taatcgattg accgaagaga aaaaagtgcc gatcaattta tggctagacg
                                             ======= ==========
       401 gtaaacaaaa tacagtacct ttggaaacgg ttaaaacgaa taagaaaaat
           ======      ========= ========== ========== ========
HITS AT:   384-406, 412-448
LC   STN Files:   CA, CAPLUS, TOXCENTER

L15  ANSWER 5 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   895212-38-1  REGISTRY
CN   DNA (human transforming growth factor α 3rd loop-containing fragment
     fusion protein with Staphylococcus enterotoxin A-specifying) (9CI)  (CA
     INDEX.  .  .

SEQ    351 taatcgattg accgaagaga aaaaagtgcc gatcaattta tggctagacg
                                             ======= ==========
       401 gtaaacaaaa tacagtacct ttggaaacgg ttaaaacgaa taagaaaaat
           ======      ========= ========== ========== ========
HITS AT:   384-406, 412-448
LC   STN Files:   CA, CAPLUS, TOXCENTER

L15  ANSWER 6 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   895212-37-0  REGISTRY
CN   DNA (human transforming growth factor α 3rd loop-containing fragment
     fusion protein with Staphylococcus enterotoxin A-specifying) (9CI)  (CA
     INDEX.  .  .

SEQ    401 taacgttaca tgataataat cgattgaccg aagagaaaaa agtgccgatc
                                                              =
       451 aatttatggc tagacggtaa acaaaataca gtacctttgg aaacggttaa
```

```
           ========== ========== ==     === ========== ==========
       501 aacgaataag aaaaatgtaa ctgttcagga gttggatctt caagcaagac
           ========== ====
HITS AT:   450-472, 478-514
LC   STN Files:   CA, CAPLUS, TOXCENTER

L15  ANSWER 7 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   895212-36-9  REGISTRY
CN   DNA (human transforming growth factor α 3rd loop-containing fragment
     fusion protein with Staphylococcus enterotoxin A-specifying) (9CI)  (CA
     INDEX.  .  .

SEQ    451 gtgccgatca atttatggct agacggtaaa caaaatacag tacctttgga
                 == ========== ========== =     ==== ==========
       501 aacggttaaa acgaataaga aaaatgtaac tgttcaggag ttggatcttc
           ========== ========== ===
HITS AT:   459-481, 487-523
LC   STN Files:   CA, CAPLUS, TOXCENTER

L15  ANSWER 8 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   889906-65-4  REGISTRY
CN   10: PN: WO2006064176 SEQID: 18 unclaimed DNA (9CI)  (CA INDEX NAME)
SQL  702

SEQ    351 tcgattgacc gaagagaaaa aagtgccgat caatttatgg ctagacggta
                                           ========== ==========
       401 aacaaaatac agtacctttg gaaacggtta aaacgaataa gaaaaatgta
           ===     == ========== ========== ========== =====
HITS AT:   381-403, 409-445

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, TOXCENTER

L15  ANSWER 9 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   888346-73-4  REGISTRY
CN   22: PN: WO2006054096 SEQID: 22 unclaimed DNA (9CI)  (CA INDEX NAME)
SQL  702

SEQ    351 tcgattgacc gaagagaaaa aagtgccgat caatttatgg ctagacggta
                                           ========== ==========
       401 aacaaaatac agtacctttg gaaacggtta aaacgaataa gaaaaatgta
           ===     == ========== ========== ========== =====
HITS AT:   381-403, 409-445

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, TOXCENTER

L15  ANSWER 10 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   888346-05-2  REGISTRY
CN   DNA (human clone A6 anti-(human terminal deoxyribonucleotidyltransferase
     (telomeric DNA)) TCR αβ (receptor) subunit β
     [99-methionine,100-serine,101-alanine,102-glutamine,173-cysteine] fusion
     protein with.  .  .

SEQ   1101 cgaagagaaa aaagtgccga tcaatttatg gctagacggt aaacaaaata
                                 ========= ========== ====     =
      1151 cagtaccttt ggaaacggtt aaaacgaata agaaaaatgt aactgttcag
           ========== ========== ========== ======
HITS AT:   1122-1144, 1150-1186
LC   STN Files:   CA, CAPLUS, TOXCENTER
```

```
L15  ANSWER 11 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   888346-01-8  REGISTRY
CN   DNA (human clone A6 anti-(transcription factor tax) TCR αβ
     (receptor) subunit β [99-methionine,100-serine,101-alanine,102-
     glutamine,173-cysteine] fusion protein with staphylococcal enterotoxin.
     .

SEQ   1101 taatcgattg accgaagaga aaaaagtgcc gatcaattta tggctagacg
                                                 ======= ==========
      1151 gtaaacaaaa tacagtacct ttggaaacgg ttaaaacgaa taagaaaaat
           ======      ========= ========== ========== ========
HITS AT:   1134-1156, 1162-1198
LC   STN Files:   CA, CAPLUS, TOXCENTER

L15  ANSWER 12 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   875804-11-8  REGISTRY
CN   DNA (synthetic immunoglobulin C215Fab fragment fusion protein with
     staphylococcus staphylococcal enterotoxin A-specifying) (9CI)  (CA INDEX
     NAME)
OTHER NAMES:
CN   8:.  .  .

SEQ   1051 gtgccgatca atttatggct agacggtaaa caaaatacag tacctttgga
                 == ========== ========== =     ==== ==========
      1101 aacggttaaa acgaataaga aaaatgtaac tgttcaggag ttggatcttc
           ========== ========== ===
HITS AT:   1059-1081, 1087-1123
LC   STN Files:   CA, CAPLUS, TOXCENTER, USPATFULL

L15  ANSWER 13 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   875804-10-7  REGISTRY
CN   DNA (synthetic immunoglobulin 5T4Fab fragment fusion protein with
     staphylococcus staphylococcal enterotoxin A isoform SEA/D227A-specifying)
     (9CI)  (CA INDEX NAME)
OTHER.  .  .

SEQ   1051 ccgatcaatt tatggctaga cggtaaacaa aatacagtac ctttggaaac
               ===== ========== ========      ======= ==========
      1101 ggttaaaacg aataagaaaa atgtaactgt tcaggagttg gatcttcaag
           ========== ==========
HITS AT:   1056-1078, 1084-1120
LC   STN Files:   CA, CAPLUS, TOXCENTER, USPATFULL

L15  ANSWER 14 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   870495-69-5  REGISTRY
CN   DNA (human interleukin-2 derivative fusion protein with Staphylococcus
     enterotoxin A-specifying) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   1: PN: CN1580263.  .  .

SEQ    801 gatcaattta tggctagacg gtaaacaaaa tacagtacct ttggaaacgg
             ======= ========== ======      ========= ==========
       851 ttaaaacgaa taagaaaaat gtaactgttc aggagttgga tcttcaagca
           ========== ========
HITS AT:   804-826, 832-868
LC   STN Files:   CA, CAPLUS, TOXCENTER

L15  ANSWER 15 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   870109-12-9  REGISTRY
```

```
CN   DNA (Staphylococcus aureus mutant gene SEA endotoxin A fusion protein with
     anti-melanoma immunoglobulin HB8759 ScFv fragment-specifying cDNA) (9CI).
     . .

SEQ   1101 cgaagagaaa aaagtgccga tcaatttatg gctagacggt aaacaaaata
                                ========= ========== ====     =
      1151 cagtaccttt ggaaacggtt aaaacgaata agaaaaatgt aactgttcag
           ========== ========== ========== ======
HITS AT:   1122-1144, 1150-1186
LC   STN Files:   CA, CAPLUS, TOXCENTER

L15  ANSWER 16 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   870109-11-8  REGISTRY
CN   DNA (Staphylococcus aureus mutant gene SEA endotoxin A cDNA) (9CI)  (CA
     INDEX NAME)
OTHER NAMES:
CN   1: PN: CN1569880 SEQID:.  .  .

SEQ     51 aacaagtcca cttgtaaatg gtagcgagaa aagcgaagaa ataaatgaaa
                  == ========== ========== ========== ====
       451 atcaatttat ggctagacgg taaacaaaat acagtacctt tggaaacggt
             ======== ========== =====      ========== ==========
       501 taaaacgaat aagaaaaatg taactgttca ggagttggat cttcaagcaa
           ========== =======
HITS AT:   59-94, 453-475, 481-517
LC   STN Files:   CA, CAPLUS, TOXCENTER

L15  ANSWER 17 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   852352-50-2  REGISTRY
CN   79: PN: US20050112141 SEQID: 15 unclaimed DNA (9CI)  (CA INDEX NAME)
SQL  774

SEQ     51 aacaagtcca cttgtaaatg gtagcgagaa aagcgaagaa ataaatgaaa
                  == ========== ========== ========== ====
HITS AT:   59-94

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, TOXCENTER, USPATFULL

L15  ANSWER 18 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   852352-42-2  REGISTRY
CN   75: PN: US20050112141 SEQID: 7 unclaimed DNA (9CI)  (CA INDEX NAME)
SQL  1443

SEQ    251 aggtgagcaa aatgaaaaaa acagcattta tactactttt attcattgcc
                                                          ====
       301 ctaacgtgga caacaagtcc acttgtaaat ggtagcgaga aaagcgaaga
           ========== ======   = ========== ========== ==========
       351 aataaatgaa aaagatttgc gaaaaaagtc tgaattgcag ggagcagctt
           =====
       701 aaaaagtgcc gatcaattta tggctagacg gtaaacaaaa tacagtacct
                         ======= ========== ======      =========
       751 ttggaaacgg ttaaaacgaa taagaaaaat gtaactgttc aggagttgga
           ========== ========== ========
HITS AT:   297-316, 320-355, 714-736, 742-778

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, TOXCENTER, USPATFULL

L15  ANSWER 19 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
```

RN *804575-19-7* REGISTRY
CN 6: PN: US20040248089 PAGE: 6 unclaimed sequence (9CI) (CA INDEX NAME)
SQL 774

```
SEQ     51 aacaagtcca cttgtaaatg gtagcgagaa aagcgaagaa ataaatgaaa
                   == ========== ========== ========== ====
       451 atcaatttat ggctagacgg taaacaaaat acagtacctt tggaaacggt
             ======== ========== =====      ========== ==========
       501 taaaacgaat aagaaaaatg taactgttca ggagttggat cttcaagcaa
           ========== =======
HITS AT:   59-94, 453-475, 481-517
```

RELATED SEQUENCES AVAILABLE WITH SEQLINK
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

L15 ANSWER 20 OF 35 REGISTRY COPYRIGHT 2006 ACS on STN
RN *796635-47-7* REGISTRY
CN DNA (Staphylococcal aureus enterotoxin A gene) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1: PN: CN1403484 PAGE: 6/12 claimed sequence

```
SEQ     51 aacaagtcca cttgtaaatg gtagcgagaa aagcgaagaa ataaatgaaa
                   == ========== ========== ========== ====
       451 atcaatttat ggctagacgg taaacaaaat acagtacctt tggaaacggt
             ======== ========== =====      ========== ==========
       501 taaaacgaat aagaaaaatg taactgttca ggagttggat cttcaagcaa
           ========== =======
HITS AT:   59-94, 453-475, 481-517
```

RELATED SEQUENCES AVAILABLE WITH SEQLINK
LC STN Files: CA, CAPLUS, TOXCENTER

L15 ANSWER 21 OF 35 REGISTRY COPYRIGHT 2006 ACS on STN
RN *796635-46-6* REGISTRY
CN DNA (Staphylococcal aureus enterotoxin A fusion protein with human neu (receptor) transmembrane domain-specifying cDNA) (9CI) (CA INDEX NAME)
OTHER. . .

```
SEQ     51 aacaagtcca cttgtaaatg gtagcgagaa aagcgaagaa ataaatgaaa
                   == ========== ========== ========== ====
       451 atcaatttat ggctagacgg taaacaaaat acagtacctt tggaaacggt
             ======== ========== =====      ========== ==========
       501 taaaacgaat aagaaaaatg taactgttca ggagttggat cttcaagcaa
           ========== =======
HITS AT:   59-94, 453-475, 481-517
```

LC STN Files: CA, CAPLUS, TOXCENTER

L15 ANSWER 22 OF 35 REGISTRY COPYRIGHT 2006 ACS on STN
RN *607003-82-7* REGISTRY
CN 7: PN: WO03080865 PAGE: 15 unclaimed sequence (9CI) (CA INDEX NAME)
SQL 774

```
SEQ     51 aacaagtcca cttgtaaatg gtagcgagaa aagcgaagaa ataaatgaaa
                   == ========== ========== ========== ====
       451 atcaatttat ggctagacgg taaacaaaat acagtacctt tggaaacggt
             ======== ========== =====      ========== ==========
       501 taaaacgaat aagaaaaatg taactgttca ggagttggat cttcaagcaa
           ========== =======
HITS AT:   59-94, 453-475, 481-517
```

```
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, TOXCENTER, USPATFULL

L15  ANSWER 23 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   581981-61-5  REGISTRY
CN   5: PN: US20030157113 SEQID: 15 unclaimed DNA (9CI)  (CA INDEX NAME)
SQL  774

SEQ     51 aacaagtcca cttgtaaatg gtagcgagaa aagcgaagaa ataaatgaaa
                   == ========== ========== ========== ====
HITS AT:   59-94

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, TOXCENTER, USPATFULL

L15  ANSWER 24 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   581981-53-5  REGISTRY
CN   1: PN: US20030157113 SEQID: 7 unclaimed DNA (9CI)  (CA INDEX NAME)
SQL  1443

SEQ    251 aggtgagcaa aatgaaaaaa acagcattta tactactttt attcattgcc
                                                          ====
       301 ctaacgtgga caacaagtcc acttgtaaat ggtagcgaga aaagcgaaga
           ========== ======   = ========== ========== ==========
       351 aataaatgaa aaagatttgc gaaaaaagtc tgaattgcag ggagcagctt
           =====
       701 aaaaagtgcc gatcaattta tggctagacg gtaaacaaaa tacagtacct
                        ======= ========== ======      =========
       751 ttggaaacgg ttaaaacgaa taagaaaaat gtaactgttc aggagttgga
           ========== ========== ========
HITS AT:   297-316, 320-355, 714-736, 742-778

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, TOXCENTER, USPATFULL

L15  ANSWER 25 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   483383-61-5  REGISTRY
CN   DNA (Staphylococcus clone A489270C staphylococcal enterotoxin A gene plus
     3'-flank) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   3: PN: US20030009015.  .  .

SEQ    351 cgattgaccg aagagaaaaa agtgccgatc aatttatggc tagacggtaa
                                       = ========== ==========
       401 acaaaataca gtacctttgg aaacggttaa aacgaataag aaaaatgtaa
           ==     === ========== ========== ========== ====
HITS AT:   380-402, 408-444

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

L15  ANSWER 26 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   483383-59-1  REGISTRY
CN   DNA (Staphylococcus clone A489270P staphylococcal enterotoxin A gene plus
     3'-flank) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   1: PN: US20030009015.  .  .

SEQ     51 aacaagtcca cttgtaaatg gtagcgagaa aagcgaagaa ataaatgaaa
                   == ========== ========== ========== ====
```

```
       451 atcaatttat ggctagacgg taaacaaaat acagtacctt tggaaacggt
             ======== ========== =====      ========== ==========
       501 taaaacgaat aagaaaaatg taactgttca ggagttggat cttcaagcaa
           ========== =======
HITS AT:   59-94, 453-475, 481-517

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

L15  ANSWER 27 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   433569-66-5  REGISTRY
CN   DNA (Staphylococcus clone A489270C enterotoxin A gene plus 3'-flank) (9CI)
     (CA INDEX NAME)
OTHER NAMES:
CN   3: PN: US6399332 SEQID:.  .  .

SEQ    351 cgattgaccg aagagaaaaa agtgccgatc aatttatggc tagacggtaa
                                         = ========== ==========
       401 acaaaataca gtacctttgg aaacggttaa aacgaataag aaaaatgtaa
           ==     === ========== ========== ========== ====
HITS AT:   380-402, 408-444

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

L15  ANSWER 28 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   433569-65-4  REGISTRY
CN   DNA (Staphylococcus clone A489270P enterotoxin A gene plus 3'-flank) (9CI)
     (CA INDEX NAME)
OTHER NAMES:
CN   1: PN: US6399332 SEQID:.  .  .

SEQ     51 aacaagtcca cttgtaaatg gtagcgagaa aagcgaagaa ataaatgaaa
                 == ========== ========== ========== ====
       451 atcaatttat ggctagacgg taaacaaaat acagtacctt tggaaacggt
             ======== ========== =====      ========== ==========
       501 taaaacgaat aagaaaaatg taactgttca ggagttggat cttcaagcaa
           ========== =======
HITS AT:   59-94, 453-475, 481-517

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

L15  ANSWER 29 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   259520-38-2  REGISTRY
CN   DNA (Staphylococcus enterotoxin A cDNA) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   1: PN: WO0009154 SEQID: 1 claimed DNA
SQL.  .  .

SEQ     51 aacaagtcca cttgtaaatg gtagcgagaa aagcgaagaa ataaatgaaa
                 == ========== ========== ========== ====
       451 atcaatttat ggctagacgg taaacaaaat acagtacctt tggaaacggt
             ======== ========== =====      ========== ==========
       501 taaaacgaat aagaaaaatg taactgttca ggagttggat cttcaagcaa
           ========== =======
HITS AT:   59-94, 453-475, 481-517

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, TOXCENTER
```

```
L15  ANSWER 30 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   255858-63-0  REGISTRY
CN   DNA (Staphylococcus aureus clone p3014-55SEA enterotoxin A gene plus
     3'-flank) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   1: PN: WO0002523.  .  .

SEQ    351 cgattgaccg aagagaaaaa agtgccgatc aatttatggc tagacggtaa
                                        = ========== ==========
       401 acaaaataca gtacctttgg aaacggttaa aacgaataag aaaaatgtaa
           ==     === ========== ========== ========== ====
HITS AT:   380-402, 408-444

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, TOXCENTER

L15  ANSWER 31 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   208058-73-5  REGISTRY
CN   DNA (Staphylococcus aureus strain WCUH29 clone 2944212 1789-nucleotide
     fragment) (9CI)  (CA INDEX NAME)
SQL  1789

SEQ   1451 acatgataat aatcgattga ccgaagagaa aaaagtgccg atcaatttat
                                                    ========
      1501 ggctagacgg taaacanaat acagtacctt tggaaacggt taaaacgaat
           ========== =====      ========== ========== ==========
      1551 aagaaaaatg taactgttca ggagttggat cttcaagcaa gacgttattt
           =======
HITS AT:   1493-1515, 1521-1557

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS

L15  ANSWER 32 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   195842-55-8  REGISTRY
CN   DNA (Staphylococcus aureus strain WCUH29 gene etxA exotoxin A cDNA plus
     flanks) (9CI)  (CA INDEX NAME)
SQL  1789

SEQ   1451 acatgataat aatcgattga ccgaagagaa aaaagtgccg atcaatttat
                                                    ========
      1501 ggctagacgg taaacanaat acagtacctt tggaaacggt taaaacgaat
           ========== =====      ========== ========== ==========
      1551 aagaaaaatg taactgttca ggagttggat cttcaagcaa gacgttattt
           =======
HITS AT:   1493-1515, 1521-1557

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, USPATFULL

L15  ANSWER 33 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   150948-58-6  REGISTRY
CN   GenBank L22566 (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   334: PN: US6737508 TABLE: 7 unclaimed DNA
SQL  1443

SEQ    251 aggtgagcaa aatgaaaaaa acagcattta tactactttt attcattgcc
                                                        ====
```

```
       301 ctaacgtgga caacaagtcc acttgtaaat ggtagcgaga aaagcgaaga
           ========== ======   = ========== ========== ==========
       351 aataaatgaa aaagatttgc gaaaaaagtc tgaattgcag ggagcagctt
           =====
       701 aaaaagtgcc gatcaattta tggctagacg gtaaacaaaa tacagtacct
                         ======= ========== ======      =========
       751 ttggaaacgg ttaaaacgaa taagaaaaat gtaactgttc aggagttgga
           ========== ========== ========
HITS AT:   297-316, 320-355, 714-736, 742-778

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   BIOSIS, CA, CAPLUS, GENBANK, TOXCENTER, USPATFULL

L15  ANSWER 34 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   118441-29-5  REGISTRY
CN   DNA (Staphylococcus aureus clone pMJB46 gene entE) (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Deoxyribonucleic acid (Staphylococcus.  .  .

SEQ     51 aacaagtcca cttgtaaatg gtagcgagaa aagcgaagaa ataaatgaaa
                   == ========== ========== ========== ====
HITS AT:   59-94

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, GENBANK, TOXCENTER, USPATFULL

L15  ANSWER 35 OF 35  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   115004-72-3  REGISTRY
CN   DNA (Staphylococcus aureus strain FRI337 gene entA) (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Deoxyribonucleic acid (Staphylococcus.  .  .

SEQ     51 aacaagtcca cttgtaaatg gtagcgagaa aagcgaagaa ataaatgaaa
                   == ========== ========== ========== ====
       451 atcaatttat ggctagacgg taaacaaaat acagtacctt tggaaacggt
             ======== ========== =====      ========== ==========
       501 taaaacgaat aagaaaaatg taactgttca ggagttggat cttcaagcaa
           ========== =======
HITS AT:   59-94, 453-475, 481-517

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LC   STN Files:   CA, CAPLUS, GENBANK, TOXCENTER, USPATFULL
```

HCAPLUS REFERENCES FOR SEQ ID HITS:

```
=> fil hcap
FILE 'HCAPLUS' ENTERED AT 17:04:39 ON 15 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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```



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FILE COVERS 1907 - 15 Dec 2006  VOL 145 ISS 26
FILE LAST UPDATED: 14 Dec 2006  (20061214/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d que l12
L1           20 SEA FILE=REGISTRY ABB=ON  PLU=ON  CACTTGTAAATGGTAGCGAGAAAAGCGAA
                GAAATAA/SQSN
L2           44 SEA FILE=REGISTRY ABB=ON  PLU=ON  ACAGTACCTTTGGAAACGGTTAAAACGAA
                TAAGAAAA/SQSN
L3            3 SEA FILE=REGISTRY ABB=ON  PLU=ON  TGCCCTAACGTGGACAACAA/SQSN
L4           46 SEA FILE=REGISTRY ABB=ON  PLU=ON  CAATTTATGGCTAGACGGTAAAC/SQSN

L5            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  CTGCTCCCTGCAATTCAGACT/SQSN
L6            6 SEA FILE=REGISTRY ABB=ON  PLU=ON  CTTGCTTGAAGATCCAACTCC/SQSN
L10          22 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L1 OR L2
L11          27 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L3 OR L4 OR L5 OR L6)
L12          21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 AND L11


=> d l12 ibib abs hitrn tot

L12  ANSWER 1 OF 21  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2006:1160923  HCAPLUS  Full-text
TITLE:                    Application of Staphylococcal enterotoxin A gene as
                          immunoadjuvant for potentiating immunogenicity of DNA
                          vaccine
INVENTOR(S):              Ma, Qingjun; Jin, Yanwen; Xu, Quanbin; Cao, Cheng
PATENT ASSIGNEE(S):       Institute of Bioengineering, Academy of Millitary
                          Medicine Science, Peop. Rep. China
SOURCE:                   Faming Zhuanli Shenqing Gongkai Shuomingshu, 14pp.
                          CODEN: CNXXEV
DOCUMENT TYPE:            Patent
LANGUAGE:                 Chinese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1853731	A	20061101	CN 2005-10068114	20050426

PRIORITY APPLN. INFO.: CN 2005-10068114 20050426

AB The current invention relates to application of Staphylococcal enterotoxin A gene as immunoadjuvant of DNA vaccine. The recombinant Staphylococcal enterotoxin A gene expressing plasmid is shown to enhance immunogenicity of DNA vaccine or recombinant subunit vaccine. Examples are given for DNA vaccines against hepatitis B virus surface antigen and malaria multiple epitopes.

IT *915245-86-2*, DNA (Staphylococcus aureus gene SEA)
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PRP (Properties)
(nucleotide sequence; application of Staphylococcal enterotoxin A gene as immunoadjuvant for potentiating immunogenicity of DNA vaccine)

L12 ANSWER 2 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:829832 HCAPLUS Full-text
DOCUMENT NUMBER: 145:349670
TITLE: Recombinant expression of multiple bacterial toxins and uses for food poisoning detection
INVENTOR(S): Liu, Zengshan; Yu, Shiyu; Meng, Xianmei
PATENT ASSIGNEE(S): Jilin University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 22pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1818066	A	20060816	CN 2005-10017147	20050921

PRIORITY APPLN. INFO.: CN 2005-10017147 20050921

AB The invention relates to recombinant expression of bacterial toxin fusion protein in which Clostridium botulinum toxin A (Hc) is fusion with Staphylococcus aureus enterotoxin A (SEA), Staphylococcus aureus enterotoxin B (SEB), Escherichia coli O157:H7 verocytotoxin type 1 variant B-subunit (VT1B), and Escherichia coli O157:H7 verocytotoxin type 2 variant B-subunit (VT2B). The genes of the above five toxins are linked by linkers to form a fusion toxin gene Hc-VT1B-SEA-VT2B-SEB. The invention also provides an antibody obtained by immunizing rabbit with the fusion toxin, which can be used to prepare a kit for detection of food poisoning, with the advantages of high specificity and sensitivity.

IT *910065-92-8*
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; recombinant expression of multiple bacterial toxins and uses for food poisoning detection)

IT *910067-69-5*, 27: PN: CN1818066 SEQID: 4 unclaimed DNA
RL: PRP (Properties)
(unclaimed nucleotide sequence; recombinant expression of multiple bacterial toxins and uses for food poisoning detection)

L12 ANSWER 3 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:608475 HCAPLUS Full-text
DOCUMENT NUMBER: 145:44895
TITLE: Assays for staphylococcal superantigen
INVENTOR(S): Jakobsen, Bent Karsten; Pumphrey, Nicholas Jonathan
PATENT ASSIGNEE(S): Avidex Ltd., UK

SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006064176	A1	20060622	WO 2005-GB4197	20051031

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: GB 2004-27585 A 20041216

AB The authors disclose an assay, particularly for engineered superantigen SEA-E120, comprising incubating a standard amount of a superantigen-containing test sample with a standard amount of a soluble TCR which binds the superantigen, separating unbound TCR from the resultant superantigen/ TCR-containing sample, quantifying the TCR bound in that sample, and comparing that result with a reference result. Also provided are soluble TCRs useful as reagents in said assay.

IT ***889906-65-4***
RL: PRP (Properties)
(unclaimed nucleotide sequence; assays for staphylococcal superantigen)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:494431 HCAPLUS Full-text
DOCUMENT NUMBER: 145:1009
TITLE: Soluble bifunctional proteins comprising T-cell receptor and superantigen moieties for the treatment of diseases
INVENTOR(S): Jakobsen, Bent Karsten
PATENT ASSIGNEE(S): Avidex Ltd., UK
SOURCE: PCT Int. Appl., 80 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006054096	A2	20060526	WO 2005-GB4449	20051117
WO 2006054096	A3	20060803		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,

SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: GB 2004-25368 A 20041118
GB 2005-2681 A 20050209

AB The present invention provides a soluble bifunctional protein comprising an association between a T-cell receptor (TCR) and a superantigen. The superantigen comprises staphylococcal enterotoxin A (SEA-E120) mutated relative to wild-type SEA-E to reduce the affinity of the superantigen for Class II MHC mols. while retaining affinity for TCR β variable domains. The TCR parts of the soluble bifunctional proteins are targeting moities specific for TCR ligands and comprise, for example, the high affinity variant of the A6 (Tax) TCR β chain extracellular amino acid sequences containing a non-native cysteine involved in the formation of a novel interchain bond linked to the wild-type SEA-E superantigen via a Gly-Ser-Gly-Gly-Pro linker. High-affinity Tax TCR-SEA-E120 fusion-mediated specific killing of PP-LCL cells (an Epstein-Barr virus-transformed B-cell line) was demonstrated with an EC50 of 0.2-0.2 nM and maximum killing (almost 100%) at 2 nM. Telomerase- and NY-ESO-specific TCR fusions with SEA-E120 are also provided. The bifunctional proteins provide therapeutic compns. for the treatment of cancers and infectious diseases.

IT *888346-01-8P 888346-05-2P*
RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nucleotide sequence; soluble bifunctional proteins comprising T-cell receptor and superantigen moieties for the treatment of diseases)

IT *888346-73-4*
RL: PRP (Properties)
(unclaimed nucleotide sequence; soluble bifunctional proteins comprising T-cell receptor and superantigen moieties for the treatment of diseases)

L12 ANSWER 5 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:432023 HCAPLUS Full-text
DOCUMENT NUMBER: 145:97498
TITLE: Sequences of Staphylococcus enterotoxin A fusion protein with transforming growth factor α as superantigens for cancer therapy
INVENTOR(S): Xu, Quanbin; Liu, Chuanxuan; Ma, Qingjun
PATENT ASSIGNEE(S): Institute of Bioengineering, Academy of Military Medical Sciences of Pla, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 32 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1718730	A	20060111	CN 2004-10062732	20040708

PRIORITY APPLN. INFO.: CN 2004-10062732 20040708

AB The invention provides sequences of Staphylococcus enterotoxin A fusion protein with transforming growth factor α as superantigens for cancer therapy. The fusion protein comprises (1) SAg (Superantigens) including SEs

(Staphylococcus enterotoxins), Spes A1-A4 (Streptococcal pyrogenic exotoxins A1-A4), SME (Streptococcal mitogenic exotoxins), and SSA (Streptococcal superantigen); and (2) cytokines, such as TGFα, EGF, or Heregulin, which are capable of binding with receptors on tumor cells. The fusion protein can be used as a tumor vaccine.

IT *895212-36-9P 895212-37-0P 895212-38-1P*
RL: BPN (Biosynthetic preparation); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nucleotide sequence; sequences of Staphylococcus enterotoxin fusion protein with transforming growth factor α as superantigens for cancer therapy)

IT *895213-43-1*, 11: PN: CN1718730 SEQID: 8 unclaimed DNA
RL: PRP (Properties)
(unclaimed nucleotide sequence; sequences of Staphylococcus enterotoxin A fusion protein with transforming growth factor α as superantigens for cancer therapy)

L12 ANSWER 6 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:149208 HCAPLUS Full-text
DOCUMENT NUMBER: 144:205744
TITLE: Treatment of hyperproliferative disease with superantigens in combination with another anticancer agent
INVENTOR(S): Hedlund, Gunnar; Forsberg, Goeran; Wallen-Oehman, Marie
PATENT ASSIGNEE(S): Active Biotech AB, Swed.
SOURCE: PCT Int. Appl., 157 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2006015882	A2	20060216	WO 2005-EP8815		20050812
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
US 2006057111	A1	20060316	US 2005-202507		20050812
PRIORITY APPLN. INFO.:			SE 2004-2025	A	20040813
			US 2004-601548P	P	20040813

AB The present invention relates to methods of treating mammals affected by, for example, a hyperproliferative disease such as cancer, by administering a tumor targeted superantigen and a chemotherapeutic agent, whereby the administration of the tumor-targeted superantigen and chemotherapeutic agent reduce the antibody response and enhance the T cell response. The superantigen, wild-type or modified, is fused to a target-seeking moiety, such as an antibody or an antibody active fragment. The combined administration of a superantigen

and a chemotherapeutic agent provides enhanced therapeutic effects in a treated animal.

IT *875804-10-7 875804-11-8*
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nucleotide sequence; treatment of hyperproliferative disease with superantigens in combination with another anticancer agent)

L12 ANSWER 7 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1294284 HCAPLUS Full-text
DOCUMENT NUMBER: 144:17918
TITLE: Construction of fusion gene containing human interleukin-2 (IL-2) and staphylococcal enterotoxin A (SEA)
INVENTOR(S): Wu, Wenfang; Yang, Liquan; Lu, Anguo; Shi, Chengbo
PATENT ASSIGNEE(S): Shenyang Institute of Applied Ecology, Chinese Academy of Sciences, Peop. Rep. China; Eternal Technology Group Inc.
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 10 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1580263	A	20050216	CN 2003-133675	20030813
PRIORITY APPLN. INFO.:			CN 2003-133675	20030813

AB The invention relates to construction of human interleukin-2 (IL-2) fused with staphylococcal enterotoxin A (SEA). The fusion gene is constructed by fusion of native SEB gene with mutant IL-2 gene via a proper linker by PCR. The nucleotide sequence of the fusion gene which could be expressed in Escherichia coli is provided.

IT *870495-69-5*
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; construction of fusion gene containing human interleukin-2 (IL-2) and staphylococcal enterotoxin A (SEA))

L12 ANSWER 8 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1230675 HCAPLUS Full-text
DOCUMENT NUMBER: 144:1313
TITLE: Staphylococcus aureus mutant gene SEA endotoxin A fused with anti-melanoma immunoglobulin HB8759 ScFv fragment for treating melanoma
INVENTOR(S): Wu, Wenfang; Sun, Jing; Shi, Chengbo; Lu, Anguo
PATENT ASSIGNEE(S): Shenyang Institute of Applied Ecology, Chinese Academy of Sciences, Peop. Rep. China; Eternal Technology Group Inc.
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 16 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1569880	A	20050126	CN 2003-133792	20030725

PRIORITY APPLN. INFO.: CN 2003-133792 20030725

AB The invention falls into the field of pharmacy and relates to the application of SEA mutant genes and the fusion protein of SEA mutant genes and ScFv genes. The superantigen SEA genes mutated by gene engineering means have base sequences as shown in sequence table 1, and ScFv-SEA recombined immunotoxin can be constructed by fusing the antigen SEA genes with anti-melanoma ScFv genes obtained by phage display technol. In vitro cell expts. show the fusion protein has stronger inhibitory effect on melanoma than on other tumors. The fusion protein with definite targeting killing effect on melanoma has a good application prospect in the development of melanoma medicines. The use of the superantigen SEA as an effective immunomodulator and a synergist can provide a new method for tumor immunotherapy.

IT *870109-11-8P 870109-12-9P*
RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nucleotide sequence; staphylococcus aureus mutant gene SEA endotoxin fused with anti-melanoma Ig HB8759 ScFv fragment for treating melanoma)

L12 ANSWER 9 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:450713 HCAPLUS Full-text
DOCUMENT NUMBER: 143:6263
TITLE: Superantigen-glycolipid conjugates and conjugate-expressing antigen-presenting cells for treatment of neoplastic disease
INVENTOR(S): Terman, David S.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 125 pp., Cont. of U.S. Ser. No. 650,884, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005112141	A1	20050526	US 2004-937758	20040908
PRIORITY APPLN. INFO.:			US 2000-650884 B1	20000830

AB The present invention comprises compns. and methods for treating a tumor or neoplastic disease in a host, The methods employ conjugates comprising superantigen polypeptides or nucleic acids with other structures that preferentially bind to tumor cells and are capable of inducing apoptosis. Also provided are superantigen-glycolipid conjugates and vesicles that are loaded onto antigen presenting cells to activate both T cells and NKT cells. Cell-based vaccines comprise tumor cells engineered to express a superantigen along with glycolipids products which, when expressed, render the cells capable of eliciting an effective anti-tumor immune response in a mammal into which these cells are introduced. Included among these compns. are tumor cells, hybrid cells of tumor cells and accessory cells, preferably dendritic cells. Also provided are T cells and NKT cells activated by the above compns. that can be administered for adoptive immunotherapy.

IT *852352-42-2 852352-50-2*
RL: PRP (Properties)
(unclaimed nucleotide sequence; superantigen-glycolipid conjugates and conjugate-expressing antigen-presenting cells for treatment of neoplastic disease)

L12 ANSWER 10 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1060635 HCAPLUS Full-text
DOCUMENT NUMBER: 142:33661

TITLE: Methods and primers for identifying enterotoxin entA gene of Staphylococcus aureus and yst gene Yersinia enterocolitica in detection of food-poisoning using PCR
INVENTOR(S): Banada, Padmanabha Padmapriya; Ramesh, Aiyagari; Chandrashekar, Arun; Varadaraj, Mandyam Chakravarathy
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 13 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004248089	A1	20041209	US 2002-107879	20020327
PRIORITY APPLN. INFO.:			US 2002-107879	20020327

AB The present invention relates to methods and primers for identifying enterotoxin entA gene of Staphylococcus aureus and yst gene Yersinia enterocolitica in detection of food-poisoning using PCR. In particular, it relates to detecting microbial pathogens in milk, ice cream and fruit juices.
IT *115004-72-3*, GenBank M18970
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(methods and primers for identifying enterotoxin entA gene of Staphylococcus aureus and yst gene Yersinia enterocolitica in detection of food-poisoning using PCR)
IT *804575-19-7*
RL: PRP (Properties)
(unclaimed sequence; methods and primers for identifying enterotoxin entA gene of Staphylococcus aureus and yst gene Yersinia enterocolitica in detection of food-poisoning using PCR)

L12 ANSWER 11 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:616931 HCAPLUS Full-text
DOCUMENT NUMBER: 141:423297
TITLE: Fusion protein comprising transmembrane sequence of c-erb-B2 and Staphylococcal enterotoxin A for use as cancer vaccine
INVENTOR(S): Yu, Hai; Ma, Wenxue
PATENT ASSIGNEE(S): Zhejiang University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 23 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1403484	A	20030319	CN 2002-137412	20021011
PRIORITY APPLN. INFO.:			CN 2002-137412	20021011

AB The invention provides a nucleotide sequence encoding fusion protein TM-SEA. Fusion protein TM-SEA comprises the transmembrane sequence (TM) of c-erb-B2 oncogene from ovarian cancer cell line HO-8910, and Staphylococcal enterotoxin A superantigen (SEA). TM-SEA is prepared by linking TM fragment with SEA gene (from Staphylococcus aureus ATCC 13,565) via splicing overlap extension, constructing recombinant expression vector pET-28a-TM- SEA, and expressing

under induction. TM-SEA is useful as antitumor vaccine and for preventing or treating recurrence and micro-metastasis of neoplasm.

IT *796635-46-6P 796635-47-7P*
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nucleotide sequence; fusion protein comprising transmembrane sequence of c-erb-B2 and Staphylococcal enterotoxin A for use as cancer vaccine)

L12 ANSWER 12 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:403053 HCAPLUS Full-text
DOCUMENT NUMBER: 140:418980
TITLE: DNA sequences from Staphylococcus aureus bacteriophages 3A, 77, and 96 that encode anti-microbial polypeptides
INVENTOR(S): Pelletier, Jerry; Gros, Philippe; Dubow, Michael
PATENT ASSIGNEE(S): Can.
SOURCE: U.S., 225 pp., Cont.-in-part of U.S. Ser. No. 407,804.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 6737508	B1	20040518	US 2000-676519		20000928
US 6982153	B1	20060103	US 1999-407804		19990928
PRIORITY APPLN. INFO.:			US 1998-110992P	P	19981203
			US 1999-407804	A2	19990928

AB The present invention discloses protein and DNA sequences of Staphylococcus aureus bacteriophages 3A, 77, and 96, particular open reading frames, and portions and products of those open reading frames which have antimicrobial activity. Methods of using such products are also described.

IT *115004-72-3*, GenBank M18970 *118441-29-5*, GenBank M21319 *150948-58-6*, GenBank L22566
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(DNA sequences from Staphylococcus aureus bacteriophages 3A, 77, and 96 that encode anti-microbial polypeptides)

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:778001 HCAPLUS Full-text
DOCUMENT NUMBER: 139:276032
TITLE: Primers used in the detection of Staphylococcus aureus and Yersinia enterocolitica food-poisoning bacteria
INVENTOR(S): Padmapriya, Banda Padmanabha; Ramesh, Aiyagari; Chandrashekar, Arun; Varadaraj, Mandyam Chakravarathy
PATENT ASSIGNEE(S): Council of Scientific and Industrial Research, India
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2003080865 A1 20031002 WO 2002-IB1150 20020326
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
AU 2002249514 A1 20031008 AU 2002-249514 20020326
JP 2005520558 T2 20050714 JP 2003-578589 20020326
US 2005233345 A1 20051020 US 2004-951225 20040927
PRIORITY APPLN. INFO.: WO 2002-IB1150 A 20020326

AB Novel primers were designed for direct simultaneous detection of S. aureus and Y. enterocolitica in food without prior enrichment. Two oligonucleotide primers for the enterotoxin A (entA) gene of S. aureus were designed based on the gene sequence M 18970. Two oligonucleotide primers for the heat-stable enterotoxin gene (yst) of Y. enterocolitica were designed based on the gene sequence X 65999. Specific amplicons for the genes were observed in PCR performed on food samples containing 1-106 cells of the resp. bacteria.

IT *115004-72-3*, GenBank M18970
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(PCR detection of Staphylococcus aureus and Yersinia enterocolitica enterotoxin genes in food)

IT *607003-82-7*
RL: PRP (Properties)
(unclaimed sequence; primers used in the detection of Staphylococcus aureus and Yersinia enterocolitica food-poisoning bacteria)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 14 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:656216 HCAPLUS Full-text
DOCUMENT NUMBER: 139:202433
TITLE: Superantigen conjugates and receptors specific for lipid-based tumor-associated antigens for treatment of neoplastic disease
INVENTOR(S): Terman, David S.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 151 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003157113	A1	20030821	US 2000-751708	20001228

PRIORITY APPLN. INFO.: US 1999-173371P P 19991228

AB The present invention comprises compns. and methods for treating a tumor or neoplastic disease in a host. The methods employ conjugates, fusion proteins, or naked nucleic acids encoding superantigen polypeptides, and other structures that preferentially bind to tumor cells and are capable of inducing tumoricidal apoptosis. The addnl. mol. serves the following functions: (1) to target a receptor (digalactosylceramide) expressed on tumor cells in vivo and induce tumor cell apoptosis (e.g., superantigen-verotoxin conjugates); (2) to

target receptors expressed on tumor sinusoidal endothelium induce apoptosis and a prothrombotic state (e.g., superantigen-oxyLDL conjugates and superantigen-Lp(a) conjugates); (3) to activate a dormant population of tumoricidal NKT cells (e.g., superantigen-digalactosylceramides, superantigens- glycosylphosphatidylinositol-digalactosylceramide complexes); (4) target receptors for integrins expressed on tumor microvasculature (e.g., superantigen-RGD conjugates); (5) naked DNA administered intratumorally inducing tumor cell expression in vivo of receptors for ligands which produce apoptosis and inflammation. Also provided are superantigen-glycolipid conjugates and vesicles that are loaded onto antigen-presenting cells to activate both T cells and NKT cells. Cell-based vaccines comprise tumor cells engineered to express a superantigen along with glycolipids products which, when expressed, render the cells capable of eliciting an effective anti-tumor immune response in a mammal into which these cells are introduced. Included among these compns. are tumor cells, hybrid cells of tumor cells and accessory cells, preferably dendritic cells. Also provided are tumoricidal T cells and NKT cells devoid of inhibitory receptors or inhibitory signaling motifs which are hyperresponsive to the the above compns. and lipid-based tumor associated antigens that can be administered for adoptive immunotherapy of cancer and infectious diseases.

IT *581981-53-5 581981-61-5*
RL: PRP (Properties)
(unclaimed nucleotide sequence; superantigen conjugates and receptors specific for lipid-based tumor-associated antigens for treatment of neoplastic disease)

L12 ANSWER 15 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:23551 HCAPLUS Full-text
DOCUMENT NUMBER: 138:88644
TITLE: Bacterial superantigen vaccines
INVENTOR(S): Ulrich, Robert G.; Olson, Mark A.; Bavari, Sina
PATENT ASSIGNEE(S): The United States of America as Represented by the Secretary of the Army, USA
SOURCE: U.S. Pat. Appl. Publ., 50 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003009015	A1	20030109	US 1997-882431	19970625
US 6713284	B2	20040330		
US 6399332	B1	20020604	US 1998-144776	19980901
US 2003036644	A1	20030220	US 2001-2784	20011126
US 7087235	B2	20060808		
CA 2506538	AA	20030710	CA 2001-2506538	20011126
AU 2002227232	A1	20030715	AU 2002-227232	20011126
EP 1461433	A1	20040929	EP 2001-996119	20011126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2005064526	A1	20050324	US 2004-767687	20040129
PRIORITY APPLN. INFO.:			US 1997-882431 A3	19970625
			US 1998-144776 A3	19980901
			WO 2001-US46540 W	20011126

AB The present invention relates to genetically attenuated superantigen toxin vaccines altered such that superantigen attributes are absent, however the superantigen is effectively recognized and an appropriate immune response is produced. The superantigens are mutated such that the binding of the

superantigen to MHC class II and T cell antigen receptor is altered. The attenuated superantigen toxins are shown to protect animals against challenge with wild type toxin. Methods of producing and using the altered superantigen toxins are described. The attenuated superantigens can also be used in diagnosis of superantigen-associated bacterial infections. Antibodies against attenuated superantigens can be used to treat or ameliorate a superantigen-associated bacterial infection.

IT *483383-59-1 483383-61-5*
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; attenuated bacterial superantigens for use in vaccines and diagnosis of bacterial infection and antibodies thereto)

L12 ANSWER 16 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:425362 HCAPLUS Full-text
DOCUMENT NUMBER: 137:5005
TITLE: Attenuated bacterial superantigen toxins for use as vaccines
INVENTOR(S): Ulrich, Robert G.; Olson, Mark A.; Bavari, Sina
PATENT ASSIGNEE(S): United States Dept. of the Army, USA
SOURCE: U.S., 46 pp., Division of U. S. Ser. No. 882,431.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6399332	B1	20020604	US 1998-144776	19980901
US 2003009015	A1	20030109	US 1997-882431	19970625
US 6713284	B2	20040330		
US 2003036644	A1	20030220	US 2001-2784	20011126
US 7087235	B2	20060808		
CA 2506538	AA	20030710	CA 2001-2506538	20011126
WO 2003056015	A1	20030710	WO 2001-US46540	20011126
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002227232	A1	20030715	AU 2002-227232	20011126
EP 1461433	A1	20040929	EP 2001-996119	20011126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.:		
US 1997-882431	A3	19970625
US 1998-144776	A3	19980901
WO 2001-US46540	W	20011126

AB The present invention relates to genetically attenuated superantigen toxin vaccines altered such that superantigen attributes are absent, however the superantigen is effectively recognized and an appropriate immune response is produced. The attenuated superantigen toxins are shown to protect animals against challenge with wild type toxin. Methods of producing and using the altered superantigen toxins, e.g. staphylococcal enterotoxin A, staphylococcal enterotoxin B, staphylococcal toxic shock syndrome toxin-1, staphylococcal enterotoxin C1 and streptococcal pyrogenic exotoxin A, are described.

IT *433569-65-4P 433569-66-5P*
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nucleotide sequence; attenuated bacterial superantigen toxins for use as vaccines)
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 17 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:133549 HCAPLUS Full-text
DOCUMENT NUMBER: 132:179576
TITLE: Bacterial superantigen vaccines
INVENTOR(S): Ulrich, Robert G.; Olson, Mark A.; Bavari, Sina
PATENT ASSIGNEE(S): Walter Reed Army Institute of Research, USA
SOURCE: PCT Int. Appl., 118 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000009154	A1	20000224	WO 1998-US16766	19980813
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2338184	AA	20000224	CA 1998-2338184	19980813
AU 9889049	A1	20000306	AU 1998-89049	19980813
AU 762813	B2	20030703		
EP 1105154	A1	20010613	EP 1998-940866	19980813
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002522055	T2	20020723	JP 2000-564656	19980813
PRIORITY APPLN. INFO.:			WO 1998-US16766 A	19980813

AB The present invention relates to genetically attenuated superantigen toxin vaccines altered such that superantigen attributes are absent, however the superantigen is effectively recognized and a n appropriate immune response is produced. The superantigen is selected from toxic shock syndrome toxin-1 (TSST-1), streptococcal pyrogenic exotoxin A (SPEa), or staphylococcal enterotoxin A (SEA), enterotoxin B (SEB) and enterotoxin C1 (SEC1). The attenuated superantigen toxins are shown to protect animals against challenge with wild type toxin. Methods of producing and using the altered superantigen toxins are described.

IT *255858-63-0 259520-38-2*, DNA (Staphylococcus enterotoxin A cDNA)
RL: PRP (Properties)
(nucleotide sequence; altered bacterial superantigen as vaccines for diagnosis and therapy of bacterial infection and diseases associated with abnormal T cell subset expansion)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 18 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:53351 HCAPLUS Full-text
DOCUMENT NUMBER: 132:106949
TITLE: Vaccine against Staphylococcus intoxication
INVENTOR(S): Lee, John S.; Pushko, Peter; Smith, Jonathan F.; Ulrich, Robert G.
PATENT ASSIGNEE(S): U.S. Medical Research Institute of Infectious Diseases Department of the Army, USA
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000002523	A2	20000120	WO 1999-US15569	19990709
WO 2000002523	A3	20001123		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2337966	AA	20000120	CA 1999-2337966	19990709
AU 9956673	A1	20000201	AU 1999-56673	19990709
AU 761021	B2	20030529		
EP 1097213	A2	20010509	EP 1999-943610	19990709
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6632640	B1	20031014	US 1999-350755	19990709
US 6770479	B1	20040803	US 1999-350729	19990709
US 2004009183	A1	20040115	US 2003-405871	20030402
US 2004009945	A1	20040115	US 2003-442502	20030521

PRIORITY APPLN. INFO.:	US 1998-92416P	P 19980710
	US 1999-350729	A1 19990709
	US 1999-350755	A3 19990709
	WO 1999-US15569	W 19990709

AB Using nucleic acids encoding mutant SEA and SEB exotoxins from Staphylococcus aureus, compns. and methods for use in inducing an immune response which is protective against staphylococcal aureus intoxication in subjects is described. Venezuelan equine encephalitis virus replicon vaccine vector system was used for the mutagenized, non-toxic staphylococcal enterotoxin A (mSEA) or B (mSEB) protein; and replicons p3014-56SEA, p3014-55SEB and p3014-57SEB were cloned.

IT *255858-63-0*
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; vaccine against Staphylococcus intoxication)

L12 ANSWER 19 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:314517 HCAPLUS Full-text
DOCUMENT NUMBER: 129:37238
TITLE: Staphylococcus aureus polynucleotides and polypeptides expressed during infection and their diagnostic and therapeutic uses
INVENTOR(S): Black, Michael T.; Hodgson, John Edward; Knowles, David J. C.; Reichard, Raymond W.; Nicholas, Richard

O.; Burnham, Martin K. R.; Pratt, Julie M.; Rosenberg, Martin; Ward, Judith M.; Lonetto, Michael A.
PATENT ASSIGNEE(S): Smithkline Beecham Corp., USA; Smithkline Beecham Plc
SOURCE: Eur. Pat. Appl., 390 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 841394	A2	19980513	EP 1997-307485	19970924
EP 841394	A3	20000202		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6107071	A	20000822	US 1997-910505	19970804
US 6008030	A	19991228	US 1997-918249	19970825
US 5948642	A	19990907	US 1997-923738	19970902
US 6348582	B1	20020219	US 1997-936165	19970923
JP 10191988	A2	19980728	JP 1997-299293	19970924
JP 10210986	A2	19980811	JP 1997-299290	19970924
JP 10210987	A2	19980811	JP 1997-299292	19970924
JP 11069980	A2	19990316	JP 1997-299295	19970924
JP 11075861	A2	19990323	JP 1997-299294	19970924
US 6165462	A	20001226	US 1999-345603	19990629
US 6248576	B1	20010619	US 2000-493459	20000128
US 2002064848	A1	20020530	US 2001-805848	20010314
US 2002082234	A1	20020627	US 2001-939980	20010827

PRIORITY APPLN. INFO.:

US 1996-27032P	P	19960924
US 1997-910505	A3	19970804
US 1997-918249	A3	19970825
US 1997-936165	A3	19970923
US 2000-493459	A3	20000128

AB The invention provides novel polypeptides and polynucleotides encoding such polypeptides and methods for producing such polypeptides by recombinant techniques. Thus, 259 polynucleotide sequences and 275 deduced amino acid sequences are provided from a library of clones of chromosomal DNA of Staphylococcus aureus strain WCUH29 in Escherichia coli. Determination of expression during infection of the genes was achieved by isolation of RNA from a 4-day groin infection of S. aureus in the mouse, preparation of cDNA from the RNA samples, and the use of PCR to determine the presence of a bacterial cDNA species. Also provided are methods for utilizing such polynucleotides and polypeptides to screen for antibacterial compds., and for use in diagnosis and therapy in bacterial infections.

IT ***208058-73-5***
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(nucleotide sequence; Staphylococcus aureus polynucleotides and polypeptides expressed during infection and their diagnostic and therapeutic uses)

L12 ANSWER 20 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:579827 HCAPLUS Full-text
DOCUMENT NUMBER: 127:273886
TITLE: Polynucleotides and amino acid sequences from Staphylococcus aureus-infected necrotic tissue
INVENTOR(S): Burnham, Martin Karl Russell; Hodgson, John Edward
PATENT ASSIGNEE(S): Smithkline Beecham PLC, UK; Burnham, Martin Karl

Russell; Hodgson, John Edward
SOURCE: PCT Int. Appl., 116 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9731114	A2	19970828	WO 1997-GB524	19970225
WO 9731114	A3	19971023		
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 822987	A2	19980211	EP 1997-905269	19970225
R: BE, CH, DE, DK, FR, GB, IT, LI, NL				
JP 11506022	T2	19990602	JP 1997-529922	19970225
US 6365159	B1	20020402	US 1999-340475	19990630

PRIORITY APPLN. INFO.:
GB 1996-4045 A 19960226
US 1996-29329P P 19961029
US 1996-30151P P 19961101
US 1997-788892 A3 19970122
WO 1997-GB524 W 19970225

AB Staphylococcal polynucleotides, polypeptides encoded by such polynucleotides, the uses of such polynucleotides and polypeptides, as well as the production of such polynucleotides and polypeptides and recombinant host cells transformed with the polynucleotides are provided. Thus, necrotic fatty tissue from a 4-day groin infection of Staphylococcus aureus WCUH29 in the mouse is efficiently disrupted and processed in the presence of chaotropic agents and RNase inhibitor to provide a mixture of animal and bacterial RNA. The optimal conditions for disruption and processing to give stable prepns. and high yields of bacterial RNA are followed by use of hybridization to a radiolabeled oligonucleotide probe specific to S. aureus 16S rRNA on Northern blots. The RNase-free, DNase-free, DNA- and protein-free prepns. of RNA obtained are suitable for RT-PCR using unique primer pairs designed from the sequence of each gene of S. aureus WCUH29. The sequences 26 cDNAs and 12 deduced proteins are provided. This invention also relates to inhibiting the biosynthesis or action of such polynucleotides or polypeptides and to the use of such inhibitors in therapy.

IT ***195842-55-8P***
RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nucleotide sequence; polynucleotides and amino acid sequences from Staphylococcus aureus-infected necrotic tissue)

L12 ANSWER 21 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:417821 HCAPLUS Full-text
DOCUMENT NUMBER: 109:17821
TITLE: Nucleotide sequence of the type A staphylococcal enterotoxin gene
AUTHOR(S): Betley, Marsha J.; Mekalanos, John J.
CORPORATE SOURCE: Dep. Microbiol. Mol. Genet., Harvard Med. Sch., Boston, MA, 02115, USA
SOURCE: Journal of Bacteriology (1988), 170(1), 34-41
CODEN: JOBAAY; ISSN: 0021-9193
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The nucleotide sequence of the gene encoding staphylococcal enterotoxin A (entA) was determined The gene, composed of 771 base pairs, encodes an enterotoxin A precursor of 257 amino acid residues. A 24-residue N-terminal

hydrophobic leader sequence is apparently processed, yielding the mature form of staphylococcal enterotoxin A (Mr, 27,100). Mature enterotoxin A has 82, 72, 74, and 34 amino acid residues in common with staphylococcal enterotoxins B and C1, type A streptococcal exotoxin, and toxic shock syndrome toxin 1, resp. This level of homol. was determined to be significant based on the results of computer anal. and biol. considerations. DNA sequence homol. between the entA gene and genes encoding other types of staphylococcal enterotoxins was examined by DNA-DNA hybridization anal. with probes derived from the entA gene. A 624-base-pair DNA probe that represented an internal fragment of the entA gene hybridized well to DNA isolated from EntE+ strains and some EntA+ strains. In contrast, a 17-base oligonucleotide probe that encoded a peptide conserved among staphylococcal enterotoxins A, B, and C1 hybridized well to DNA isolated from EntA+, EntB+, EntC1+, and EntD+ strains. These hybridization results indicate that considerable sequence divergence has occurred within this family of exotoxins.

IT *115004-72-3*, Deoxyribonucleic acid (Staphylococcus aureus strain FRI337 gene entA)
RL: PRP (Properties); BIOL (Biological study)
(nucleotide sequence of)

TEXT SEARCH

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L7          1752 SEA FILE=HCAPLUS ABB=ON  PLU=ON  "ENTEROTOXIN A (L) STAPHYLOCOC
                 CAL ENTEROTOXIN A"+PFT/CT OR STAPHYLOC?(3A)ENTERO?(3A)"A"
L8         40563 SEA FILE=HCAPLUS ABB=ON  PLU=ON  NUCLEIC ACID HYBRIDIZATION+PFT
                 ,NT/CT
L9            10 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7 AND  (L8 OR (NUCLEIC ACID
                 AND HYBRIDIZ?))


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=> d que l18
L16           57 SEA STAPHYLOCOC?(3A) ENTEROTOX?(3A)"A" AND (HYBRIDIZ? OR
                 HYBRIDIS?)
L17           12 SEA L16 AND NUCLEIC
L18           57 SEA L16 OR L17


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PROCESSING COMPLETED FOR L18
L30           34 DUP REM L9 L18 (33 DUPLICATES REMOVED)
                 ANSWERS '1-10' FROM FILE HCAPLUS
                 ANSWERS '11-27' FROM FILE MEDLINE
                 ANSWERS '28-30' FROM FILE EMBASE
                 ANSWERS '31-33' FROM FILE BIOSIS
                 ANSWER '34' FROM FILE WPIX

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L30  ANSWER 1 OF 34  HCAPLUS  COPYRIGHT 2006 ACS on STN DUPLICATE 1
ACCESSION NUMBER:        2004:497054  HCAPLUS  Full-text
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DOCUMENT NUMBER: 141:237234
TITLE: Simultaneous analysis of multiple Staphylococcal enterotoxin genes by an oligonucleotide microarray assay
AUTHOR(S): Sergeev, Nikolay; Volokhov, Dmitriy; Chizhikov, Vladimir; Rasooly, Avraham
CORPORATE SOURCE: Center for Food Safety and Applied Nutrition, Food and Drug Administration, College Park, MD, USA
SOURCE: Journal of Clinical Microbiology (2004), 42(5), 2134-2143
CODEN: JCMIDW; ISSN: 0095-1137
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB *Staphylococcal enterotoxins* (SEs) are a family of 17 major serol. types of heat-stable enterotoxins that are one of the leading causes of gastroenteritis resulting from consumption of contaminated food. SEs are considered potential bioweapons. Many Staphylococcus aureus isolates contain multiple SEs. Because of the large number of SEs, serol. typing and PCR typing are laborious and time-consuming. Furthermore, serol. typing may not always be practical because of antigenic similarities among enterotoxins. The authors report on a microarray-based one-tube assay for the simultaneous detection and identification (genetic typing) of multiple enterotoxin (ent) genes. The proposed typing method is based on PCR amplification of the target region of the ent genes with degenerate primers, followed by characterization of the PCR products by microchip *hybridization* with oligonucleotide probes specific for each ent gene. The authors verified the performance of this method by using several other techniques, including PCR amplification with gene-specific primers, followed by gel electrophoresis or microarray *hybridization*, and sequencing of the enterotoxin genes. The assay was evaluated by anal. of previously characterized staphylococcal isolates containing 16 ent genes. The microarray assay revealed that some of these isolates contained addnl. previously undetected ent genes. The use of degenerate primers allows the simultaneous amplification and identification of as many as nine different ent genes in one S. aureus strain. The results of this study demonstrate the usefulness of the oligonucleotide microarray assay for the anal. of multitoxigenic strains, which are common among S. aureus strains, and for the anal. of microbial pathogens in general.

CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 10

IT Primers (*nucleic acid*)
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(DNA; microarray-based one-tube assay for the simultaneous detection and identification of multiple staphylococcal enterotoxin genes)

IT Probes (*nucleic acid*)
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(microarray-based one-tube assay for the simultaneous detection and identification of multiple staphylococcal enterotoxin genes)

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 2 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2004:868882 HCAPLUS Full-text
DOCUMENT NUMBER: 142:233975
TITLE: Detection of *Staphylococcus* aureus *enterotoxin A* and B genes with PCR-EIA and a hand-held electrochemical sensor
AUTHOR(S): Aitichou, Mohamed; Henkens, Robert; Sultana, Afroz M.;

Ulrich, Robert G.; Sofi Ibrahim, M.
CORPORATE SOURCE: Clinical Research Management, Frederick, MD, 21702, USA
SOURCE: Molecular and Cellular Probes (2004), 18(6), 373-377
CODEN: MCPRE6; ISSN: 0890-8508
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two electrochem. assays for detecting ***Staphylococcus*** aureus ***enterotoxin A*** and B genes were developed. The assays are based on PCR amplification with biotinylated primers, ***hybridization*** to a fluorescein-labeled probe, and detection with horseradish peroxidase-conjugated anti-fluorescein antibody using a hand-held electrochem. detector. The limit of detection (LOD) for both assays was approx. 16 copies of the sea and seb genes. The assays were evaluated in blinded studies, each with 81 samples that included genomic and cloned S. aureus DNA, and genomic DNA from Alcaligens, Bacillus, Bacteroides, Bordetella, Borkholderia, Clostridium, Comanonas, Enterobacter, Enterococcus, Escherichia, Francisella, Haemophilus, Klebsiella, Listeria, Moraxella, Neisseria, Proteus, Pseudomonas, Salmonella, Serratia, Shigella, Streptococcus, Vibrio and Yersinia species. Both assays showed 100% sensitivity. The specificity was 96% for the SEA assay and 98% for the SEB assay. These results demonstrate the feasibility of performing probe-based detection of PCR products with a low-cost, hand-held, electrochem. detection device as a viable alternative to colorimetric enzyme-linked assays of PCR products.
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 4, 10, 15
IT PCR (polymerase chain reaction)
(-EIA; detection of ***Staphylococcus*** aureus ***enterotoxin A*** and B genes with PCR-EIA and a hand-held electrochem. sensor)
IT Enterotoxins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(A or B; detection of ***Staphylococcus*** aureus ***enterotoxin A*** and B genes with PCR-EIA and a hand-held electrochem. sensor)
IT Enzyme immunoassay
(PCR-; detection of ***Staphylococcus*** aureus ***enterotoxin A*** and B genes with PCR-EIA and a hand-held electrochem. sensor)
IT Primers (***nucleic acid***)
RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); BIOL (Biological study); USES (Uses)
(S. aureus enterotoxin gene sea or seb specific; detection of ***Staphylococcus*** aureus ***enterotoxin A*** and B genes with PCR-EIA and a hand-held electrochem. sensor)
IT Infection
(bacterial; detection of ***Staphylococcus*** aureus ***enterotoxin A*** and B genes with PCR-EIA and a hand-held electrochem. sensor)
IT Staphylococcus aureus
(detection of ***Staphylococcus*** aureus ***enterotoxin A*** and B genes with PCR-EIA and a hand-held electrochem. sensor)
IT Sensors
(electrochem.; detection of ***Staphylococcus*** aureus ***enterotoxin A*** and B genes with PCR-EIA and a hand-held electrochem. sensor)
IT Gene, microbial
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(entB; detection of ***Staphylococcus*** aureus ***enterotoxin***

A and B genes with PCR-EIA and a hand-held electrochem. sensor)
IT Diagnosis
(mol.; detection of *Staphylococcus* aureus *enterotoxin* A and B genes with PCR-EIA and a hand-held electrochem. sensor)
IT Gene, microbial
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(sea; detection of *Staphylococcus* aureus *enterotoxin* A and B genes with PCR-EIA and a hand-held electrochem. sensor)
IT 844906-40-7 844906-41-8 844906-42-9 844906-43-0 844906-44-1 844906-45-2
RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); BIOL (Biological study); USES (Uses)
(S. aureus enterotoxin gene sea or seb specific primer; detection of *Staphylococcus* aureus *enterotoxin A* and B genes with PCR-EIA and a hand-held electrochem. sensor)
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 3 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2003:954200 HCAPLUS Full-text
DOCUMENT NUMBER: 140:140183
TITLE: Staphylococcal accessory gene regulator (sar) as a signature gene to detect enterotoxigenic staphylococci
AUTHOR(S): Padmapriya, B. P.; Ramesh, A.; Chandrashekar, A.; Varadaraj, M. C.
CORPORATE SOURCE: Department of Food Microbiology, Central Food Technological Research Institute, Mysore, India
SOURCE: Journal of Applied Microbiology (2003), 95(5), 974-981
CODEN: JAMIFK; ISSN: 1364-5072
PUBLISHER: Blackwell Publishing Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To evaluate the use of a staphylococcal accessory gene regulator (sar) as *a* means of detecting *enterotoxigenic staphylococci*. SarA gene-specific primers were designed and applied in PCR, which resulted in the detection of 49 sar-pos. isolates from a total of 67 natural food isolates of staphylococci. Colony *hybridization* using PCR-generated Digoxigenin (DIG)-labeled sarA probe tested in spiked samples of khoa (a traditional heat-concentrated milk product) comprising a mixed microflora ensured the specificity of the probe. Validation expts. with the com. samples of khoa also demonstrated the specificity of the probe. PCR characterization for enterotoxins A-D revealed the presence of at least one of the toxin-encoding genes in all the sarA-pos. isolates tested. The study indicated that sarA gene could be an ideal marker gene either in colony *hybridization* or in PCR, for an effective detection of potentially *enterotoxigenic* strains of *staphylococci* in *a* food system. As an alternative to targeting the individual toxin genes, a regulatory gene responsible for controlling the synthesis of various virulence factors may be a suitable target gene for screening potentially toxigenic staphylococci in food system using *nucleic acid*-based methods.
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 10
IT *Enterotoxins*
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(*A*-D; *Staphylococcal* accessory gene regulator (sar) as a signature gene to detect enterotoxigenic staphylococci)
IT Primers (*nucleic acid*)
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); DGN (Diagnostic use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(Staphylococcal accessory gene regulator (sar) as a signature gene to detect enterotoxigenic staphylococci)

IT Probes (***nucleic acid***)
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); DGN (Diagnostic use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(digoxigenin (DIG)-labeled; Staphylococcal accessory gene regulator (sar) as a signature gene to detect enterotoxigenic staphylococci)

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 4 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2003:574745 HCAPLUS Full-text
DOCUMENT NUMBER: 139:208414
TITLE: Differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen foods by combined arbitrarily primed polymerase chain reaction and DNA probe
AUTHOR(S): Cordoba, Maria G.; Jordano, Rafael; Aranda, Emilio; Benito, Maria J.; Cordoba, Juan J.
CORPORATE SOURCE: Higiene y Tecnologia, de los Alimentos, Escuela de Ingenierias Agrarias, Universidad de Extremadura, Badajoz, Spain
SOURCE: Nahrung (2003), 47(3), 166-170
CODEN: NAHRAR; ISSN: 0027-769X
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In prepared and frozen flamenquin and hake fish fingers Staphylococcus aureus as sanitary hazards have been detected. In the present work, a combined method that includes an arbitrarily primed PCR (AP-PCR) and a mixed DNA probe ***hybridization*** designed for the enterotoxigenic genes sea, seb, sec, and sed will be assayed to differentiate enterotoxigenic S. aureus from other staphylococcal species isolated during the processing of prepared and frozen foods. From the protocols tested for the AP-PCR, the highest number of amplification bands showing the best resolution was achieved at 30° annealing and 35° extension temps. Several staphylococci identified by a biochem. test as S. aureus showed in the AP-PCR anal. different banding patterns to the refs. S. aureus. The isolates, were investigated by slot blot ***hybridization*** for genes encoding A, B, C, and D staphylococcal enterotoxins to determine their enterotoxigenic potential. Several isolates characterized by the AP-PCR anal. as S. aureus ***hybridized*** with the DNA probe mixture The combined AP-PCR and DNA probe ***hybridization*** assayed was able to differentiate toxigenic S. aureus from other staphylococcal species from prepared and frozen foods. This method could be considered as microbial quality assurance in these products.

CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 10, 17

ST Staphylococcus enterotoxin fish food contamination PCR DNA ***hybridization***

IT PCR (polymerase chain reaction)
(AP (arbitrarily primed)-; differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen flamenquin and hake fish fingers by combined arbitrarily primed PCR and DNA probe ***hybridization***)

IT Food contamination
Food processing
Nucleic acid hybridization
Staphylococcus aureus
Staphylococcus epidermidis
Staphylococcus warneri

Staphylococcus xylosus
(differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen flamenquin and hake fish fingers by combined arbitrarily primed PCR and DNA probe ***hybridization***)

IT Probes (***nucleic acid***)
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen flamenquin and hake fish fingers by combined arbitrarily primed PCR and DNA probe ***hybridization***)

IT Gene, microbial
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(entB; differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen flamenquin and hake fish fingers by combined arbitrarily primed PCR and DNA probe ***hybridization***)

IT Toxins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(enterotoxins, staphylococcal B, gene for; differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen flamenquin and hake fish fingers by combined arbitrarily primed PCR and DNA probe ***hybridization***)

IT Frozen foods
(fish; differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen flamenquin and hake fish fingers by combined arbitrarily primed PCR and DNA probe ***hybridization***)

IT Food
(flamenquin; differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen flamenquin and hake fish fingers by combined arbitrarily primed PCR and DNA probe ***hybridization***)

IT Fish
Hake
(frozen; differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen flamenquin and hake fish fingers by combined arbitrarily primed PCR and DNA probe ***hybridization***)

IT Gene, microbial
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(sea; differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen flamenquin and hake fish fingers by combined arbitrarily primed PCR and DNA probe ***hybridization***)

IT Gene, microbial
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(sec; differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen flamenquin and hake fish fingers by combined arbitrarily primed PCR and DNA probe ***hybridization***)

IT Gene, microbial
RL: ANT (Analyte); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(sed; differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen flamenquin and hake fish fingers by combined arbitrarily primed PCR and DNA probe ***hybridization***)

IT Enterotoxins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(staphylococcal C, gene for; differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen flamenquin and hake fish fingers by combined arbitrarily primed PCR and DNA probe ***hybridization***)

IT Enterotoxins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(staphylococcal D, gene for; differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen flamenquin and hake fish fingers by combined arbitrarily primed PCR and DNA probe ***hybridization***)

IT ***Enterotoxin A***
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(***staphylococcal enterotoxin A***, gene for; differentiation of toxigenic Staphylococcus aureus in staphylococcal isolates from prepared and frozen flamenquin and hake fish fingers by combined arbitrarily primed PCR and DNA probe ***hybridization***)

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 5 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 8
ACCESSION NUMBER: 1994:126243 HCAPLUS Full-text
DOCUMENT NUMBER: 120:126243
TITLE: Digoxigenin-labeled probes for detection of genes coding for enterotoxins and toxic shock syndrome toxin-1 from staphylococcal strains
AUTHOR(S): Vilaro, Mario; Jaulhac, Benoit; Rifai, Samer; Nicolini, Pascale; Piemont, Yves; Monteil, H.
CORPORATE SOURCE: Inst. Bacteriol., Fac. Med., Strasbourg, 67000, Fr.
SOURCE: Journal of Microbiological Methods (1993), 18(2), 83-90
CODEN: JMIMDQ; ISSN: 0167-7012
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A rapid and sensitive dot blot assay using nonradioactive labeled oligonucleotides as probes, was developed for detection of genes coding for ***staphylococcal enterotoxins*** (SEs) ***A***, B, C, D, E and toxic shock syndrome toxin-1 (TSST-1). A specific probe selected and synthesized for each of the 6 toxin genes, was 3'-labeled by Dig-11-dUTP and dATP tailing. ***Hybridization*** conditions were optimized from the manufacturer conditions so that sensitivity and specificity of the digoxigenin assay were equivalent to those obtained when using radioactive methods. Such a nonradioactive genotypic assay, suitable for epidemiol. studies, is therefore of particular interest for all biol. labs. interested in staphylococcal enterotoxins and TSST-1 detection.

CC 3-1 (Biochemical Genetics)
ST toxin gene detection digoxigenin probe ***hybridization***

IT Gene, microbial
RL: BIOL (Biological study)
(sea, for ***staphylococcal enterotoxin A***, detection of, with digoxigenin-labeled probes)

IT ***Nucleic acid hybridization***
(staphylococcal toxin genes detection by, with digoxigenin-labeled probes)

IT 153157-02-9D, digoxigenin-labeled
RL: USES (Uses)
(probe Sa2, ***staphylococcal enterotoxin A*** gene detection with, by ***hybridization***)

IT 153157-03-0D, digoxigenin-labeled
RL: USES (Uses)

(probe Sb2, staphylococcal enterotoxin B gene detection with, by ***hybridization***)

IT 145718-25-8D, digoxigenin-labeled
RL: USES (Uses)
(probe Sc1, staphylococcal enterotoxin C gene detection with, by ***hybridization***)

IT 145718-26-9D, digoxigenin-labeled
RL: USES (Uses)
(probe Sd1, staphylococcal enterotoxin D gene detection with, by ***hybridization***)

IT 145718-27-0D, digoxigenin-labeled
RL: USES (Uses)
(probe Se1, staphylococcal enterotoxin E gene detection with, by ***hybridization***)

IT 153157-04-1D, digoxigenin-labeled
RL: USES (Uses)
(probe St2, staphylococcal toxic shock syndrome toxin-1 gene detection with, by ***hybridization***)

L30 ANSWER 6 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 10
ACCESSION NUMBER: 1993:74422 HCAPLUS Full-text
DOCUMENT NUMBER: 118:74422
TITLE: Synthetic DNA probes for detection of genes for enterotoxins A, B, C, D, E and for TSST-1 in staphylococcal strains
AUTHOR(S): Jaulhac, B.; Bes, M.; Bornstein, N.; Piemont, Y.; Brun, Y.; Fleurette, J.
CORPORATE SOURCE: Fac. Med., Univ. Louis Pasteur, Strasbourg, 67000, Fr.
SOURCE: Journal of Applied Bacteriology (1992), 72(5), 386-92
CODEN: JABAA4; ISSN: 0021-8847
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A dot blot ***hybridization*** technique with oligonucleotide probes was developed for the specific detection of the TSST-1 gene and the ***staphylococcal enterotoxin*** (SE) genes ***A***, B, C, D and E. For each toxin gene a probe sequence was chosen from the previously determined sequence. A total of 145 staphylococcal strains (133 Staphylococcus aureus and 12 coagulase-neg. staphylococci (CNS)) were studied by this genotypic method and by two phenotypic assays (gel immunodiffusion and ELISA). An excellent correlation (96%) was observed between the genotypic and phenotypic assays. DNA from two CNS strains ***hybridized*** with a probe without detection of the corresponding toxin (SEB) for one strain and SEC for the other strain). One S. aureus strain was shown to be an SEC producer, but was not detected by the corresponding probe. Gene probe and immunol. assays seem to be complementary methods for studies of staphylococcal strains producing (or potentially producing) TSST-1 or enterotoxins.

CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 14

ST ***hybridization*** DNA probe Staphylococcus enterotoxin gene; toxic shock syndrome gene Staphylococcus probe

IT Staphylococcus aureus
(toxin TSST-1 and enterotoxin genes of, ***hybridization*** detection of, DNA probes for)

IT Gene, microbial
RL: BIOL (Biological study)
(sea, for enterotoxin of Staphylococcus aureus, DNA probe for ***hybridization*** detection of)

IT Gene, microbial
RL: BIOL (Biological study)
(sed, for enterotoxin of Staphylococcus aureus, DNA probe for

hybridization detection of)
IT Gene, microbial
RL: BIOL (Biological study)
(see, for enterotoxin of Staphylococcus aureus, DNA probe for ***hybridization*** detection of)
IT ***Nucleic acid hybridization***
(DNA-DNA, probes for, for detection of Staphylococcus aureus enterotoxin and toxin TSST-1 genes)
IT Toxins
RL: BIOL (Biological study)
(***entero-, A***, gene for ***Staphylococcus*** aureus, DNA probes for ***hybridization*** detection of)
IT Toxins
RL: BIOL (Biological study)
(entero-, B, gene for Staphylococcus aureus, DNA probes for ***hybridization*** detection of)
IT Toxins
RL: BIOL (Biological study)
(entero-, C, gene for Staphylococcus aureus, DNA probes for ***hybridization*** detection of)
IT Toxins
RL: BIOL (Biological study)
(entero-, D, gene for Staphylococcus aureus, DNA probes for ***hybridization*** detection of)
IT Toxins
RL: BIOL (Biological study)
(entero-, E, gene for Staphylococcus aureus, DNA probes for ***hybridization*** detection of)
IT Shock
(toxic shock syndrome, Staphylococcus aureus gene tst for, ***hybridization*** detection of, DNA probes for)
IT Toxins
RL: BIOL (Biological study)
(toxic shock, 1, gene for Staphylococcus aureus, DNA probes for ***hybridization*** detection of)
IT Gene, microbial
RL: PROC (Process)
(entB, for enterotoxin of Staphylococcus aureus, DNA probe for ***hybridization*** detection of)
IT Gene, microbial
RL: PROC (Process)
(sec, for enterotoxin of Staphylococcus aureus, DNA probe for ***hybridization*** detection of)
IT Gene, microbial
RL: PROC (Process)
(tst, for toxic shock syndrome, of Staphylococcus aureus, DNA probes for ***hybridization*** detection of)
IT 138988-03-1 145718-23-6 145718-24-7 145718-25-8 145718-26-9 145718-27-0
RL: USES (Uses)
(***hybridization*** probe, for detection of ***Staphylococcus*** aureus ***enterotoxin A***)

L30 ANSWER 7 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 13
ACCESSION NUMBER: 1990:548181 HCAPLUS Full-text
DOCUMENT NUMBER: 113:148181
TITLE: Oligonucleotide probes for detection and differentiation of Staphylococcus aureus strains containing genes for enterotoxins A, B, and C and toxic shock syndrome toxin 1

AUTHOR(S): Neill, Roger J.; Fanning, George R.; Delahoz, Frank; Wolff, Ruth; Gemski, Peter
CORPORATE SOURCE: Dep. Mol. Pathol., Walter Reed Army Inst. Res., Washington, DC, 20307, USA
SOURCE: Journal of Clinical Microbiology (1990), 28(7), 1514-18
CODEN: JCMIDW; ISSN: 0095-1137
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Different synthetic DNA nucleotide sequences were evaluated as gene probes for the specific detection and differentiation of ***Staphylococcus*** aureus strains encoding ***enterotoxins A*** (SEA), B(SEB, and C(SEC) and toxic shock syndrome toxin 1 (TSST-1). Identification of sequences unique to each toxin, based on knowledge of their nucleotide sequences, led to preparation of the specific 18-base oligonucleotide probes EA1 (encoding amino acids 177 to 182 of SEA), EB2 (encoding amino acids 105 to 110 of SEB), EC5 (encoding amino acids 125 to 131 of SEC1), and TS1 (encoding amino acids 160 to 166 of TSST-1). In colony blot ***hybridization*** analyses, these probes ***hybridized*** specifically with DNA from strains that produced the resp. toxin serotypes. An excellent (≥93%) correlation between ***hybridization*** results (genotype) and toxin protein detection by an ELISA (phenotype) was observed in the characterization of both reference and clin. strains of S. aureus for SEA, SEB, TSST-1. A lower correlation (64%) for SEC reflected a lack of sensitivity in detecting toxin production Thus, mol. DNA ***hybridization*** with synthetic oligonucleotide probes provides another approach for establishing the toxigenicity of S. aureus.

CC 9-2 (Biochemical Methods)
Section cross-reference(s): 4, 10, 14

ST staphylococcus detection DNA ***hybridization*** probe; toxin gene Staphylococcus detection

IT ***Nucleic acid hybridization***
(Staphylococcus aureus containing genes for toxins detection, oligonucleotide probes for)

L30 ANSWER 8 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 14
ACCESSION NUMBER: 1991:402595 HCAPLUS Full-text
DOCUMENT NUMBER: 115:2595
TITLE: The use of DNA probes for confirming enterotoxin production by Staphylococcus aureus and micrococci
AUTHOR(S): Ewald, S.; Heuvelman, C. J.; Notermans, S.
CORPORATE SOURCE: Dep. Food Hyg., Norw. Coll. Vet. Med., Oslo, 0033, Norway
SOURCE: International Journal of Food Microbiology (1990), 11(3-4), 251-7
CODEN: IJFMDD; ISSN: 0168-1605
DOCUMENT TYPE: Journal
LANGUAGE: English

AB DNA-DNA colony ***hybridization*** was employed to evaluate the results obtained by different immunol. methods for detection of staphylococcal enterotoxin. S. aureus strains tested for staphylococcal enterotoxin production by immunoassays and micrococci not previously tested for staphylococcal enterotoxin production were examined for presence of the genes encoding for ***staphylococcal enterotoxin A***, B, C and E by using three corresponding DNA probes. The ***staphylococcal enterotoxin A*** probe also detected ***staphylococcal enterotoxin*** E gene because of 100% homol. The optimal sensitivity plane method showed the best accordance between the immunoassay and the ***hybridization*** reactions. The ELISA detected 12.5 to 17% staphylococcal enterotoxin producers without ***hybridization*** reactions. The microslide gel double diffusion test and the reversed passive latex agglutination test showed rather poor accordance with the ***hybridization*** reactions. All 17 strains of

different micrococci investigated were neg. in ***hybridization*** with all three DNA probes.

CC 4-1 (Toxicology)

IT ***Nucleic acid hybridization***
(in Micrococcus and Staphylococcus aureus enterotoxin detection)

L30 ANSWER 9 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:470355 HCAPLUS Full-text
DOCUMENT NUMBER: 141:35977
TITLE: Method for the detection of pathogenic gram positive bacteria selected from the genera staphylococcus, enterococcus and streptococcus
INVENTOR(S): Haberhausen, Gerd; Emrich, Thomas; Rossau, Rudi; Jannes, Geert E.; De Vos, Daniel
PATENT ASSIGNEE(S): Roche Diagnostics G.m.b.H., Germany; Innogenetics N.V.
SOURCE: Eur. Pat. Appl., 27 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1426447	A1	20040609	EP 2002-27272	20021206
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CA 2507236	AA	20040624	CA 2003-2507236	20031202
CA 2507240	AA	20040624	CA 2003-2507240	20031202
WO 2004053155	A1	20040624	WO 2003-EP13530	20031202
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
WO 2004053148	A1	20040624	WO 2003-EP13545	20031202
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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AU 2003289927	A1	20040630	AU 2003-289927	20031202
AU 2003289930	A1	20040630	AU 2003-289930	20031202
EP 1570079	A1	20050907	EP 2003-782268	20031202
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
EP 1570070	A1	20050907	EP 2003-782271	20031202
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1720335	A	20060111	CN 2003-80105073	20031202

CN 1745177	A	20060308	CN 2003-80109551	20031202
JP 2006508669	T2	20060316	JP 2004-557967	20031202
JP 2006508694	T2	20060316	JP 2005-502306	20031202
CA 2507933	AA	20040624	CA 2003-2507933	20031205
WO 2004053457	A2	20040624	WO 2003-US38783	20031205
WO 2004053457	A3	20040923		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003300825	A1	20040630	AU 2003-300825	20031205
EP 1570086	A2	20050907	EP 2003-812827	20031205
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006518189	T2	20060810	JP 2005-508480	20031205
US 2006269914	A1	20061130	US 2005-532319	20050422
US 2006099596	A1	20060511	US 2005-534915	20050510
US 2006240427	A1	20061026	US 2006-534955	20060206
PRIORITY APPLN. INFO.:			EP 2002-27272 A	20021206
			EP 2003-7458 A	20030404
			WO 2003-EP13530 W	20031202
			WO 2003-EP13545 W	20031202
			WO 2003-US38783 W	20031205

AB The present invention is directed to a method for identification of a Gram pos. pathogenic bacterium (eg. ***Staphylococcus***, Streptococcus, ***Enterococcus***) comprising (a) an amplification step with at least a first set of amplification primers capable of amplifying a preselected ***nucleic acid*** sequence region (such as the 16S-23S rRNA spacer region) from a first predetd. sub-group of pathogenic Gram pos. bacteria, (b) a detection step with at least a first ***hybridization*** reagent capable of specifically detecting a preselected ***nucleic acid*** sequence region from said first predetd. sub-group of pathogenic Gram pos. bacteria, said detection step comprising steps (ba) monitoring, whether ***hybridization*** has occurred at a preselected temperature, said occurrence of ***hybridization*** being indicative for at least the genus of a pathogenic organism present in the sample, and (bb) monitoring temperature dependence of ***hybridization*** (using a pair of FRET-probes complementary to adjacent sequences), said temperature dependence being indicative for at least the species of said pathogenic Gram pos. bacterium.

IC ICM C12Q001-14
ICS G01N033-58; G01N033-542; C12Q001-68

CC 9-16 (Biochemical Methods)
Section cross-reference(s): 10

IT DNA sequences
Enterococcus
Fluorescence resonance energy transfer
Gram-positive bacteria
Nucleic acid hybridization
Pathogenic bacteria
Sample preparation
Staphylococcus
Streptococcus
(method for detection of pathogenic gram pos. bacteria selected from the genera staphylococcus, enterococcus and streptococcus)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 10 OF 34 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:577993 HCAPLUS Full-text
DOCUMENT NUMBER: 132:74052
TITLE: Development and use of molecular diagnostic techniques for the detection and subtyping of food pathogens
AUTHOR(S): Tsen, Hau-Yang
CORPORATE SOURCE: Department of Food Science, National Chung-Hsing University, Taichung, Taiwan
SOURCE: Food for Health in the Pacific Rim, International Conference of Food Science and Technology, 3rd, Davis, Calif., Oct. 19-23, 1997 (1999), Meeting Date 1997, 457-467. Editor(s): Whitaker, John R. Food & Nutrition Press: Trumbull, Conn.
CODEN: 68BQAF
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English

AB A review with 13 refs. Conventional methods for the detection of certain food pathogens such as Salmonella, enterotoxigenic Staphylococcus aureus and pathogenic Escherichia coli in food samples are time consuming and laborious, thus rapid methods for detection of these food pathogens are important. In the past years, we have developed DNA probes and polymerase chain reaction (PCR) primers and used them for the inspection of food samples. Furthermore, for some food pathogens, such as type A enterotoxigenic S. aureus, we have also investigated their antibiograms and genomic finger-prints, such as pulsed field gel electrophoretic (PFGE) patterns of chromosomal DNA so that the subtypes and the most disseminated strains for these bacterial strains may be elucidated. The data so established may also be useful for tracing the contamination origin of pathogenic bacteria once an outbreak occurs. Results obtained from our studies indicate that novel DNA probes and PCR primers obtained from mol. cloning technique or from 16S rRNA gene sequences could be used for the detection of Salmonella spp. and those designed from the toxin genes of S. aureus or E. coli cells could be used for the detection of these pathogenic bacterial cells. On the part of the mol. typing studies for ***Staphylococcal enterotoxin A*** (SEA) S. aureus strains isolated in Taiwan and USA, we found that although SEA S. aureus strains from geog. far distant locations showed considerable genetic diversity, strains of certain PFGE pattern might be the predominant or the most disseminated strains.

CC 3-0 (Biochemical Genetics)
Section cross-reference(s): 10, 17
ST review PCR ***hybridization*** pulsed field gel electrophoresis food pathogen; Salmonella Staphylococcus Escherichia detection food review
IT Escherichia coli
Food
Nucleic acid hybridization
PCR (polymerase chain reaction)
Pulsed-field gel electrophoresis
Salmonella
(development and use of mol. diagnostic techniques for detection and subtyping of food pathogens)
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 11 OF 34 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 2002736547 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 12498587
TITLE: Occurrence of enterotoxigenic Staphylococcus aureus in food.
AUTHOR: Holeckova Beata; Holoda Emil; Fotta Marian; Kalinacova

Viera; Gondol' Julius; Grolmus Jan
CORPORATE SOURCE: Department of Genetics, University of Veterinary Medicine, Komenskeho, Kosice, Slovak Republic.. holeckova@uvm.sk
SOURCE: Annals of agricultural and environmental medicine : AAEM, (2002) Vol. 9, No. 2, pp. 179-82.
Journal code: 9500166. ISSN: 1232-1966.
PUB. COUNTRY: Poland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200304
ENTRY DATE: Entered STN: 27 Dec 2002
Last Updated on STN: 4 Apr 2003
Entered Medline: 3 Apr 2003

AB Gastroenteritis is one of the most frequent microbial diseases, which is caused by the ingestion of food contaminated with staphylococcal enterotoxins. In our study, the production of ***staphylococcal enterotoxins A***, B (SEA, SEB) and the presence of respective staphylococcal enterotoxin genes were investigated in the field S. aureus isolates obtained from foods and food industry manufactures in East Slovakia. Radioimmunoassay (RIA), polymerase chain reaction (PCR) and dot-blot ***hybridisation*** were used for examination. The ability to synthesise enterotoxins was found in 20 (39.2%) of the total number of 51 isolates. Production of SEA was recorded in 3 (5.9%), production of SEB in 12 (23.5%) and production SEA together with SEB in 5 (9.8%) staphylococcal isolates. Nine (47.4%) sheep cheese isolates of the total number of 19 produced enterotoxins, especially SEB (36.8%). S. aureus isolates from pasta were enterotoxigenic in 6 cases (33.3%). The synthesis of enterotoxins was not detected in Bryndza cheese and sausages isolates. One enterotoxigenic isolate was obtained from smears of technological equipment and 4 isolates from throat and nasal swabs. No differences in results were recorded between RIA and PCR as well as PCR and dot-blot ***hybridisation***. Our results suggest that it is of special importance to follow the presence of enterotoxigenic S. aureus strains in foodstuffs, especially for protecting the consumers from food poisoning.

CT Animals
Bread: MI, microbiology
Cheese: MI, microbiology
DNA, Bacterial: GE, genetics
*Enterotoxins: GE, genetics
Food Industry
*Food Microbiology
Gastroenteritis: EP, epidemiology
Gastroenteritis: MI, microbiology
Gastroenteritis: PC, prevention & control
Genotype
Humans
Immunoblotting
Polymerase Chain Reaction
Radioimmunoassay
Research Support, Non-U.S. Gov't
Sheep
Slovakia: EP, epidemiology
*Staphylococcal Food Poisoning: EP, epidemiology
Staphylococcal Food Poisoning: MI, microbiology
Staphylococcal Food Poisoning: PC, prevention & control
*Staphylococcus aureus: GE, genetics
Staphylococcus aureus: IP, isolation & purification

CN 0 (DNA, Bacterial); 0 (Enterotoxins)

L30 ANSWER 12 OF 34 MEDLINE on STN DUPLICATE 6

ACCESSION NUMBER: 96236182 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 8787389
TITLE: Gram-positive, catalase-positive cocci from dry cured Iberian ham and their enterotoxigenic potential.
AUTHOR: Rodriguez M; Nunez F; Cordoba J J; Bermudez E; Asensio M A
CORPORATE SOURCE: Higiene y Tecnologia de los Alimentos, Facultad de Veterinaria, Universidad de Extremadura, Caceres, Spain.
SOURCE: Applied and environmental microbiology, (1996 Jun) Vol. 62, No. 6, pp. 1897-902.
Journal code: 7605801. ISSN: 0099-2240.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199609
ENTRY DATE: Entered STN: 8 Oct 1996
Last Updated on STN: 3 Mar 2000
Entered Medline: 25 Sep 1996

AB Iberian ham is an uncooked, cured meat product ripened under natural uncontrolled conditions for 18 to 24 months. Gram-positive, catalase-positive cocci are the main microbial population in Iberian ham for most of the ripening time. Since some of these organisms are able to produce enterotoxins, adequate characterization and toxicological study are needed. For this, 1,327 gram-positive, catalase-positive cocci, isolated from Iberian hams at different stages and locations, were characterized by physiological and biochemical tests. Selected isolates were further characterized by guanine-cytosine (G+C) content and restriction enzyme analysis of genes coding for 16S rRNA. The toxigenic potential of these organisms was tested with specific DNA gene probes for ***staphylococcal enterotoxins A***, B, C, and D and confirmed by semiquantitative sandwich enzyme immunoassay. The majority of the isolates were identified as Staphylococcus spp. and Micrococcus spp. Non-identified gram-positive, catalase-positive cocci which were moderately halophilic and showed a 42 to 52% G+C content were detected. A great variety of staphylococcal strains were found within the different species at any sampling time. Two strains of Staphylococcus xylosus, one Staphylococcus cohnii strain, and four of the non-identified organisms with 42 to 52% G+C contents ***hybridized*** with some of the DNA probes for C and D staphylococcal enterotoxin genes. S. xylosus ***hybridizing*** with C-enterotoxin probe reacted with both C and D enterotoxins in the immunological test. In addition, enterotoxin D was confirmed in the nonidentified strains. Some toxigenic organisms were isolated from the final product, posing a health hazard for the consumer.

CT Animals
Anti-Bacterial Agents: PD, pharmacology
Base Composition
Base Sequence
*Catalase: ME, metabolism
DNA Probes: GE, genetics
DNA, Bacterial: CH, chemistry
DNA, Bacterial: GE, genetics
Drug Resistance, Microbial
*Enterotoxins: BI, biosynthesis
Enterotoxins: GE, genetics
Food Handling
Genes, Bacterial
*Gram-Positive Cocci: IP, isolation & purification
*Gram-Positive Cocci: ME, metabolism
Gram-Positive Cocci: PY, pathogenicity
Lysostaphin: PD, pharmacology
*Meat Products: AE, adverse effects

*Meat Products: MI, microbiology
Micrococcus: GE, genetics
Micrococcus: IP, isolation & purification
Micrococcus: PY, pathogenicity
Molecular Sequence Data
Peptides
RNA, Bacterial: GE, genetics
RNA, Ribosomal, 16S: GE, genetics
Research Support, Non-U.S. Gov't
Staphylococcus: GE, genetics
Staphylococcus: IP, isolation & purification
Staphylococcus: PY, pathogenicity
Swine

CN 0 (Anti-Bacterial Agents); 0 (DNA Probes); 0 (DNA, Bacterial); 0 (Enterotoxins); 0 (Peptides); 0 (RNA, Bacterial); 0 (RNA, Ribosomal, 16S); EC 1.11.1.6 (Catalase); EC 3.4.24.75 (Lysostaphin)

L30 ANSWER 13 OF 34 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 96029745 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 7591086
TITLE: Overexpression of the T-cell receptor V beta 3 in transgenic mice increases mortality during infection by ***enterotoxin A***-producing ***Staphylococcus*** aureus.
AUTHOR: Zhao Y X; Abdelnour A; Kalland T; Tarkowski A
CORPORATE SOURCE: Department of Clinical Immunology, University of Goteborg, Sweden.
SOURCE: Infection and immunity, (1995 Nov) Vol. 63, No. 11, pp. 4463-9.
Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199511
ENTRY DATE: Entered STN: 24 Jan 1996
Last Updated on STN: 24 Jan 1996
Entered Medline: 30 Nov 1995

AB We have previously demonstrated that staphylococcal enterotoxins contribute to arthritis and mortality during staphylococcal infection. To further explore the mechanism by which bacterial superantigens contribute to the pathogenesis of Staphylococcus aureus septicemia, T-cell receptor V beta 3 transgenic (TGV beta 3) mice and nontransgenic (non-TG) littermates were inoculated intravenously with S. aureus AB-1, which produces large amounts of ***staphylococcal enterotoxin A***, which specifically reacts with T-cell receptor V beta 3. Within 9 days after inoculation, 85% of the TGV beta mice died, compared with 31% of their non-TG littermates ($P < 0.01$). The high mortality of TGV beta 3 mice was accompanied by elevated bacterial burdens in the blood, spleen, and kidneys. The in vivo kinetics of cytokine mRNA expression was studied by an in situ ***hybridization*** technique. Staphylococcal infection gave rise to increased expression of interleukin 1 beta (IL-1 beta) mRNA and sparsely expressed tumor necrosis factor alpha (TNF-alpha), IL-4, and IL-10 mRNAs in both groups. Gamma interferon mRNA expression increased on day 3 and was maintained at a detectable level in the late phase of infection in TGV beta 3 mice, in contrast to non-TG mice. Impressively, significantly higher expression of TNF-beta mRNA in TGV beta 3 mice was noted throughout the course of infection than in non-TG littermates. These findings suggest that overproduction of TNF-beta and gamma interferon, the Th1 cytokines, may play a crucial role in the pathogenesis of septicemia caused by enterotoxin-secreting staphylococci.

CT Animals
Cytokines: BI, biosynthesis
Cytokines: GE, genetics
*Enterotoxins: TO, toxicity
Gene Expression
Lymphocyte Activation
Mice
Mice, Transgenic
RNA, Messenger: GE, genetics
Receptors, Antigen, T-Cell, alpha-beta: GE, genetics
*Receptors, Antigen, T-Cell, alpha-beta: PH, physiology
Research Support, Non-U.S. Gov't
Spleen: IM, immunology
*Staphylococcal Infections: IM, immunology
Staphylococcal Infections: MO, mortality
*Staphylococcus aureus: PY, pathogenicity
RN ***37337-57-8 (enterotoxin A, Staphylococcal)***
CN 0 (Cytokines); 0 (Enterotoxins); 0 (RNA, Messenger); 0 (Receptors, Antigen, T-Cell, alpha-beta)

L30 ANSWER 14 OF 34 MEDLINE on STN DUPLICATE 11
ACCESSION NUMBER: 92180366 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 1796586
TITLE: [Monoclonal antibodies to natural human gamma-type interferon].
Monoklonal'nye antitela k prirodnomu chelovecheskomu interferonu tipa gamma.
AUTHOR: Nagieva F G; Barkova E P; Andzhaparidze O G
SOURCE: Voprosy virusologii, (1991 Jul-Aug) Vol. 36, No. 4, pp. 306-9.
Journal code: 0417337. ISSN: 0507-4088.
PUB. COUNTRY: USSR
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199204
ENTRY DATE: Entered STN: 24 Apr 1992
Last Updated on STN: 24 Apr 1992
Entered Medline: 8 Apr 1992

AB Nine hybridomas producing monoclonal antibodies (MCA) to natural human gamma interferon (IF-gamma) were generated. BALB/c mice were immunized with nonpurified IF-gamma preparation synthesized by lymphoid cells of the peripheral blood of donors in response to induction with ***staphylococcal enterotoxin A.*** For the first time somatic ***hybridization*** was done with the use of a medium with a high content of HEPES which maintained hybridomas viable for a long period of time. Out of 9 hybridomas, two (-gamma 6.1 and gamma-8.1) were shown to produce MCA with a high binding activity in the enzyme immunoassay. The same MCA effectively neutralized the biological activity of natural IF-gamma.

CT Animals
Antibodies, Monoclonal: AN, analysis
*Antibodies, Monoclonal: BI, biosynthesis
Antibodies, Monoclonal: IP, isolation & purification
Cell Line
Cells, Cultured: IM, immunology
Culture Media
English Abstract
Humans
Hybridomas: IM, immunology
Immunization

Interferon Type II: AN, analysis
Interferon Type II: BI, biosynthesis
*Interferon Type II: IM, immunology
Lymphocytes: IM, immunology
Mice
Mice, Inbred BALB C
Neutralization Tests
RN 82115-62-6 (Interferon Type II)
CN 0 (Antibodies, Monoclonal); 0 (Culture Media)

L30 ANSWER 15 OF 34 MEDLINE on STN DUPLICATE 12
ACCESSION NUMBER: 90256233 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 2140340
TITLE: Identification of a bacteriophage containing a silent *staphylococcal* variant *enterotoxin* gene (sezA+).
AUTHOR: Soltis M T; Mekalanos J J; Betley M J
CORPORATE SOURCE: Department of Bacteriology, University of Wisconsin-Madison 53706.
CONTRACT NUMBER: AI25574 (NIAID)
RR00167 (NCRR)
SOURCE: Infection and immunity, (1990 Jun) Vol. 58, No. 6, pp. 1614-9.
Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199006
ENTRY DATE: Entered STN: 20 Jul 1990
Last Updated on STN: 20 Jul 1990
Entered Medline: 25 Jun 1990

AB A variant enterotoxin gene, referred to as sezA+, has been identified. Staphylococcus aureus FRI1106, *a staphylococcal enterotoxin* type D producer (Sed+), contained HindIII fragments of 3.8 and 9.4 kilobase pairs (kbp) that *hybridized* in Southern blot analysis to *a* probe containing only *staphylococcal enterotoxin* type *A* structural gene sequences. Presumably, probe A-624 *hybridized* to the 9.4-kbp HindIII fragment because of the sequence homology between sea+ and sed+. This 9.4-kbp HindIII fragment, which was part of a staphylococcal plasmid, was isolated and ligated into an Escherichia coli plasmid vector; Sed+ E. coli recombinant clones were isolated. The 3.8-kbp HindIII fragment was shown to be part of a viable lysogenic bacteriophage, and it contained sezA+. This sezA(+)-containing fragment was cloned into E. coli, and its DNA sequence was determined. Examination of the nucleotide sequence revealed a 771-bp region that contained an open reading frame with 85 and 77% nucleotide and derived amino acid sequence identifies with sea+ and *staphylococcal enterotoxin* type *A*, respectively. This open reading frame has 83 to 50% nucleotide sequence identities with the other types of staphylococcal enterotoxin genes. sezA+ was shown to be transcribed into stable mRNA. However, the sezA+ mRNA was not translated into an enterotoxinlike protein because it lacks an appropriate translation initiation codon.

CT Amino Acid Sequence
*Bacterial Toxins: GE, genetics
Base Sequence
Blotting, Northern
Blotting, Southern
Cloning, Molecular
*Enterotoxins: GE, genetics
Gene Expression

Genes, Viral
Molecular Sequence Data
Promoter Regions (Genetics)
RNA, Messenger: GE, genetics
Research Support, U.S. Gov't, P.H.S.
*Staphylococcus Phages: GE, genetics
*Staphylococcus aureus: GE, genetics
Viral Structural Proteins: GE, genetics
CN 0 (Bacterial Toxins); 0 (Enterotoxins); 0 (RNA, Messenger); 0 (Viral Structural Proteins)

L30 ANSWER 16 OF 34 MEDLINE on STN DUPLICATE 15
ACCESSION NUMBER: 88086892 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 3335483
TITLE: Nucleotide sequence of the type ***A staphylococcal enterotoxin*** gene.
AUTHOR: Betley M J; Mekalanos J J
CORPORATE SOURCE: Department of Microbiology and Molecular Genetics, Harvard Medical School, Boston, Massachusetts 02115.
CONTRACT NUMBER: AI 23036 (NIAID)
SOURCE: Journal of bacteriology, (1988 Jan) Vol. 170, No. 1, pp. 34-41.
Journal code: 2985120R. ISSN: 0021-9193.
PUB. COUNTRY: United States.
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-M18970
ENTRY MONTH: 198802
ENTRY DATE: Entered STN: 5 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 10 Feb 1988

AB We determined the nucleotide sequence of the gene encoding ***staphylococcal enterotoxin A*** (entA). The gene, composed of 771 base pairs, encodes an enterotoxin A precursor of 257 amino acid residues. A 24-residue N-terminal hydrophobic leader sequence is apparently processed, yielding the mature form of ***staphylococcal enterotoxin A*** (Mr, 27,100). Mature enterotoxin A has 82, 72, 74, and 34 amino acid residues in common with staphylococcal enterotoxins B and C1, type A streptococcal exotoxin, and toxic shock syndrome toxin 1, respectively. This level of homology was determined to be significant based on the results of computer analysis and biological considerations. DNA sequence homology between the entA gene and genes encoding other types of staphylococcal enterotoxins was examined by DNA-DNA ***hybridization*** analysis with probes derived from the entA gene. A 624-base-pair DNA probe that represented an internal fragment of the entA gene ***hybridized*** well to DNA isolated from EntE+ strains and some EntA+ strains. In contrast, a 17-base oligonucleotide probe that encoded a peptide conserved among ***staphylococcal enterotoxins A***, B, and C1 ***hybridized*** well to DNA isolated from EntA+, EntB+, EntC1+, and EntD+ strains. These ***hybridization*** results indicate that considerable sequence divergence has occurred within this family of exotoxins.

CT Amino Acid Sequence
Base Sequence
Cloning, Molecular
DNA, Bacterial: GE, genetics
*Enterotoxins: GE, genetics
*Genes, Bacterial
Molecular Sequence Data
Nucleic Acid Hybridization
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.

Sequence Homology, Nucleic Acid
*Staphylococcus aureus: GE, genetics
RN ***37337-57-8 (enterotoxin A, Staphylococcal)***
CN 0 (DNA, Bacterial); 0 (Enterotoxins)

L30 ANSWER 17 OF 34 MEDLINE on STN DUPLICATE 16
ACCESSION NUMBER: 85244641 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 3160112
TITLE: ***Staphylococcal enterotoxin A*** is encoded by phage.
AUTHOR: Betley M J; Mekalanos J J
SOURCE: Science, (1985 Jul 12) Vol. 229, No. 4709, pp. 185-7. Journal code: 0404511. ISSN: 0036-8075.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198508
ENTRY DATE: Entered STN: 20 Mar 1990
Last Updated on STN: 20 Mar 1990
Entered Medline: 12 Aug 1985
AB The gene for ***staphylococcal enterotoxin A*** (entA), in two wild-type strains, is carried by related temperate bacteriophages. ***Hybridization*** analysis of DNA from entA-converting phage PS42-D and its bacterial host suggests that this phage integrates into the bacterial chromosome by circularization and reciprocal crossover (the Campbell model) and that the entA gene is located near the phage attachment site. DNA from three of eight staphylococcal strains that did not produce enterotoxin A and seven wild-type enterotoxin A-producing (EntA+) strains had extensive homology to the entA-converting phage PS42-D DNA, although there was a high degree of restriction-fragment length polymorphisms. At least one EntA+ strain did not produce detectable viable phage after induction. These data indicate that a polymorphic family of Staphylococcus aureus phages (some of which may be defective) can carry the entA gene.
CT *Enterotoxins: GE, genetics
Research Support, Non-U.S. Gov't
*Staphylococcus Phages: GE, genetics
Staphylococcus Phages: ME, metabolism
Staphylococcus aureus: ME, metabolism
RN ***37337-57-8 (enterotoxin A, Staphylococcal)***
CN 0 (Enterotoxins)

L30 ANSWER 18 OF 34 MEDLINE on STN
ACCESSION NUMBER: 2006058839 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 16435288
TITLE: CNS activational responses to staphylococcal enterotoxin B: T-lymphocyte-dependent immune challenge effects on stress-related circuitry.
AUTHOR: Serrats Jordi; Sawchenko Paul E
CORPORATE SOURCE: Laboratory of Neuronal Structure and Function, The Salk Institute for Biological Studies and The Foundation for Medical Research, La Jolla, California 92037, USA.
CONTRACT NUMBER: NS-21182 (NINDS)
SOURCE: The Journal of comparative neurology, (2006 Mar 10) Vol. 495, No. 2, pp. 236-54. Journal code: 0406041. ISSN: 0021-9967.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 200605
ENTRY DATE: Entered STN: 31 Jan 2006
Last Updated on STN: 26 May 2006
Entered Medline: 25 May 2006

AB ***Staphylococcal enterotoxin*** B (SEB) is ***a*** bacterial superantigen that engages the immune system in a T-lymphocyte-dependent manner and induces a cytokine profile distinct from that elicited by the better-studied bacterial pathogen analog, lipopolysaccharide (LPS). Because of reports of SEB recruiting central nervous system (CNS) host defense mechanisms via pathways in common with LPS, we sought to further characterize central systems impacted by this agent. Rats were treated with SEB at doses of 50-5,000 mug/kg, and killed 0.5-6 hours thereafter. SEB injection produced a discrete pattern of Fos induction in brain that peaked at 2-3 hours postinjection and whose strength was dose-related. Induced Fos expression was predominantly subcortical and focused in a set of interconnected central autonomic structures, including aspects of the bed n. of the stria terminàlis, central amygdala and lateral parabrachial nuclei; functionally related (and LPS-responsive) cell groups in the n. solitary tract, ventrolateral medulla, and paraventricular hypothalamic n. (PVH) were, by contrast, weakly responsive. SEB also activated cell groups in the limbic forebrain (lateral septal n, medial prefrontal cortex) and hypothalamic GABAergic neurons, which could account for its failure to elicit reliable increases in Fos-ir or corticotropin-releasing factor (CRF) mRNA in the PVH. SEB nevertheless did provoke reliable pituitary-adrenal secretory responses. The identification of subsets of central autonomic and limbic forebrain structures that are sensitive to SEB provides a basis for a systems-level understanding of the physiological and behavioral effects attributed to the superantigen. Core SEB-responsive cell groups exclude a medullary-PVH circuit implicated in pituitary-adrenal responses to LPS. Copyright 2006 Wiley-Liss, Inc.

CT Check Tags: Male
Animals
Cell Count: MT, methods
Central Nervous System: CY, cytology
*Central Nervous System: DE, drug effects
Central Nervous System: IM, immunology
Central Nervous System: ME, metabolism
Comparative Study
Corticotropin: ME, metabolism
Corticotropin-Releasing Hormone: ME, metabolism
Cytokines: BL, blood
DNA-Binding Proteins: ME, metabolism
Dose-Response Relationship, Drug
*Enterotoxins: PD, pharmacology
Gene Expression: DE, drug effects
Gene Expression: IM, immunology
Immunohistochemistry: MT, methods
In Situ Hybridization: MT, methods
Interleukin-1: AD, administration & dosage
Lymphocyte Activation: DE, drug effects
*Neural Pathways
Neural Pathways: DE, drug effects
Neural Pathways: IM, immunology
Neural Pathways: ME, metabolism
Neurons: ME, metabolism
Oncogene Proteins v-fos: ME, metabolism
Rats
Rats, Sprague-Dawley
Receptors, Cytoplasmic and Nuclear: ME, metabolism
Receptors, Steroid: ME, metabolism
Research Support, N.I.H., Extramural

Research Support, Non-U.S. Gov't
*Stress: ME, metabolism
*T-Lymphocytes: DE, drug effects
T-Lymphocytes: ME, metabolism
Time Factors
Transcription Factors: ME, metabolism
gamma-Aminobutyric Acid: ME, metabolism

RN 121479-42-3 (orphan nuclear receptor NGFI-B); 39424-53-8 (enterotoxin B, staphylococcal); 56-12-2 (gamma-Aminobutyric Acid); 9002-60-2 (Corticotropin); 9015-71-8 (Corticotropin-Releasing Hormone)

CN 0 (Cytokines); 0 (DNA-Binding Proteins); 0 (Enterotoxins); 0 (Interleukin-1); 0 (Oncogene Proteins v-fos); 0 (Receptors, Cytoplasmic and Nuclear); 0 (Receptors, Steroid); 0 (Transcription Factors)

L30 ANSWER 19 OF 34 MEDLINE on STN

ACCESSION NUMBER: 1998371090 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 9705390
TITLE: Rapid and specific detection of toxigenic Staphylococcus aureus: use of two multiplex PCR enzyme immunoassays for amplification and ***hybridization*** of staphylococcal enterotoxin genes, exfoliative toxin genes, and toxic shock syndrome toxin 1 gene.
AUTHOR: Becker K; Roth R; Peters G
CORPORATE SOURCE: Institute of Medical Microbiology, University of Munster, 48149 Munster, Germany.. kbecker@uni-muenster.de
SOURCE: Journal of clinical microbiology, (1998 Sep) Vol. 36, No. 9, pp. 2548-53.
Journal code: 7505564. ISSN: 0095-1137.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199809
ENTRY DATE: Entered STN: 25 Sep 1998
Last Updated on STN: 25 Sep 1998
Entered Medline: 16 Sep 1998

AB Two multiplex PCR enzyme immunoassays (PCR-EIAs) were developed for Staphylococcus aureus exotoxin gene screening as an alternative to the conventional biological assays, which depend on detectable amounts of toxins produced. One set of oligonucleotide primers and probes was designed to search for enterotoxin A to E genes (entA, entB, entC, entD, and entE), and the other one was designed to detect the staphylococcal exfoliative toxin genes (eta and etb) and the toxic shock syndrome toxin 1 gene (tst). Oligonucleotide primers were used as published previously, modified or newly developed to meet the requirements of both good size-distinguishable amplification bands of multiplex PCR and the temperature limit of the uracil DNA glycosylase system for carryover protection. Amplification products were visualized by agarose gel electrophoresis, and specificity was controlled with the aid of a DNA EIA system using oligonucleotide probes derived from the sequences of the S. aureus toxin genes. PCR procedures were performed by using template ***nucleic*** acids extracted from a panel of S. aureus reference strains and from a collection of 50 clinical strains. The PCR results were compared with those of immunological toxin production assays. This multiplex PCR-EIA system offers an alternative method for the rapid, sensitive, specific, and simultaneous detection of the clinically important exotoxin potency of isolated S. aureus strains for diagnostic purposes as well as research studies.

CT *Bacterial Toxins
Comparative Study
DNA Primers

Electrophoresis, Agar Gel
*Enterotoxins: GE, genetics
*Exfoliatins: GE, genetics
Humans
Immunoenzyme Techniques
Nucleic Acid Hybridization
Oligonucleotide Probes
Phenotype
Polymerase Chain Reaction: MT, methods
Sensitivity and Specificity
*Staphylococcus aureus: GE, genetics
*Staphylococcus aureus: IP, isolation & purification
Staphylococcus aureus: PY, pathogenicity
*Superantigens
RN 12788-99-7 (enterotoxin D, Staphylococcal); ***37337-57-8 (enterotoxin A, Staphylococcal)***; 39424-53-8 (enterotoxin B, staphylococcal); 39424-54-9 (enterotoxin C, staphylococcal)
CN 0 (Bacterial Toxins); 0 (DNA Primers); 0 (Enterotoxins); 0 (Exfoliatins); 0 (Oligonucleotide Probes); 0 (Superantigens); 0 (enterotoxin E, Staphylococcal); 0 (enterotoxin F, Staphylococcal)

L30 ANSWER 20 OF 34 MEDLINE on STN
ACCESSION NUMBER: 1998379963 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 9716106
TITLE: The frequent expansion of a subpopulation of B cells that express RF-associated cross-reactive idiotypes: evidence from analysis of a panel autoreactive monoclonal antibodies.
AUTHOR: Melero J; Aguilera I; Mageed R A; Jefferis R; Tarrago D; Nunez-Roldan A; Sanchez B
CORPORATE SOURCE: Servicio de Immunologia, Hospital Universitario Virgen del Rocio, Sevilla, Spain.
SOURCE: Scandinavian journal of immunology, (1998 Aug) Vol. 48, No. 2, pp. 152-8.
Journal code: 0323767. ISSN: 0300-9475.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199809
ENTRY DATE: Entered STN: 17 Sep 1998
Last Updated on STN: 17 Sep 1998
Entered Medline: 4 Sep 1998

AB Preferential expression of VH gene segments is evident within the adult human primary B-cell repertoire. The repertoire may be influenced by genetic factors, e.g. VH gene segment polymorphisms, or in a temporal manner due to the exposure to environmental antigens. The molecular characteristics of 15 autoreactive human monoclonal antibodies (MoAbs) are reported. All antibodies were of the IgM isotype, and 12 of the 15 were polyreactive and included rheumatoid factor type specificity, i.e. reactivity with IgG. Nine of the 15 MoAbs are products of VH3 gene segments, as evidenced by staphylococcal protein A binding; four of these express the cross-reactive idiotype recognized by the mouse MoAb 3H7 and are thus products of the VH26 gene segment. One of the five remaining VH3 gene products expresses the cross-reactive idiotypes recognized by the mouse MoAbs B6 and D12. V-gene family usage, determined by polymerase chain reaction (PCR) amplification of cDNA and further ***hybridization*** with family-specific oligonucleotide probes, confirmed the cross-reactive idiotype studies and showed that only VH3-gene-encoded proteins bound staphylococcal protein A. Five of the six non-VH3 gene segment products express the cross-reactive idiotype recognized by the mouse MoAb LC1

and could be assumed to be products of the VH4.21 gene segment; however, one human MoAb is shown to be the product of a VH2 gene segment. This is interesting because it turns LC1 from being an anti-cross-reactive idiotype antibody into an anticlan reagent.

CT Animals
Antibodies, Monoclonal
Antibody Specificity
*B-Lymphocytes: IM, immunology
Cross Reactions
Enterotoxins: IM, immunology
Humans
Immunoglobulin Heavy Chains: GE, genetics
Immunoglobulin Heavy Chains: IM, immunology
Immunoglobulin Idiotypes
Immunoglobulin M: IM, immunology
Immunoglobulin Variable Region: GE, genetics
Immunoglobulin Variable Region: IM, immunology
Mice
Research Support, Non-U.S. Gov't
*Rheumatoid Factor: IM, immunology

RN ***37337-57-8 (enterotoxin A, Staphylococcal)***; 9009-79-4 (Rheumatoid Factor)

CN 0 (Antibodies, Monoclonal); 0 (Enterotoxins); 0 (Immunoglobulin Heavy Chains); 0 (Immunoglobulin Idiotypes); 0 (Immunoglobulin M); 0 (Immunoglobulin Variable Region)

L30 ANSWER 21 OF 34 MEDLINE on STN

ACCESSION NUMBER: 96374434 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 8780725
TITLE: The guanylin/STa receptor is expressed in crypts and apical epithelium throughout the mouse intestine.
AUTHOR: Swenson E S; Mann E A; Jump M L; Witte D P; Giannella R A
CORPORATE SOURCE: Division of Digestive Diseases, VA Medical Center, Cincinnati, Ohio, USA.
SOURCE: Biochemical and biophysical research communications, (1996 Aug 23) Vol. 225, No. 3, pp. 1009-14.
Journal code: 0372516. ISSN: 0006-291X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-U49723
ENTRY MONTH: 199610
ENTRY DATE: Entered STN: 6 Nov 1996
Last Updated on STN: 6 Nov 1996
Entered Medline: 22 Oct 1996

AB Guanylyl cyclase C (GC-C), a transmembrane receptor for E. coli heat-stable enterotoxin (STa) and for the endogenous peptides guanylin and uroguanylin, catalyzes formation of cGMP and influences fluid and electrolyte flux in the gut. We characterized the expression of GC-C in the mouse by Northern blot, in situ ***hybridization***, and ligand binding studies. GC-C mRNA was present in mouse intestine by embryonic day 12, and was expressed at high levels in both crypts and villus or surface epithelium of adult small intestine and colon, respectively. Radiolabeled STa binding to membranes from several tissues correlated with the presence of GC-C mRNA. Extraintestinal GC-C expression was detected only in neonatal mouse liver. The presence of GC-C in mouse intestinal crypts supports the putative role of GC-C in fluid and electrolyte homeostasis and resembles the pattern in human tissues.

CT Animals
Animals, Newborn

Base Sequence
Cell Membrane: ME, metabolism
DNA Primers: GE, genetics
*Enterotoxins: ME, metabolism
Epithelium: ME, metabolism
Gene Expression
Guanylate Cyclase: GE, genetics
*Guanylate Cyclase: ME, metabolism
Humans
In Situ Hybridization
*Intestines: ME, metabolism
Mice
Molecular Sequence Data
RNA, Messenger: GE, genetics
RNA, Messenger: ME, metabolism
Rats
Receptors, Peptide: GE, genetics
*Receptors, Peptide: ME, metabolism
Research Support, U.S. Gov't, Non-P.H.S.
Tissue Distribution
RN *37337-57-8 (enterotoxin A, Staphylococcal)*
CN 0 (DNA Primers); 0 (Enterotoxins); 0 (RNA, Messenger); 0 (Receptors, Peptide); EC 4.6.1.2 (Guanylate Cyclase); EC 4.6.1.2 (enterotoxin receptor)

L30 ANSWER 22 OF 34 MEDLINE on STN
ACCESSION NUMBER: 93063295 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 1436060
TITLE: Enterotoxin residues determining T-cell receptor V beta binding specificity.
AUTHOR: Irwin M J; Hudson K R; Fraser J D; Gascoigne N R
CORPORATE SOURCE: Department of Immunology, Scripps Research Institute, La Jolla, California 92037.
SOURCE: Nature, (1992 Oct 29) Vol. 359, No. 6398, pp. 841-3. Journal code: 0410462. ISSN: 0028-0836.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199212
ENTRY DATE: Entered STN: 22 Jan 1993
Last Updated on STN: 22 Jan 1993
Entered Medline: 1 Dec 1992

AB Superantigens such as the staphylococcal enterotoxins bind to major histocompatibility complex (MHC) class II molecules and activate T cells through a specific interaction between the V beta region of the T-cell antigen receptor (TCR) and the toxin. The TCR beta-chain alone is sufficient to produce the interaction with the enterotoxin-class II complex. Identification of the regions of enterotoxins that interact with TCR has so far proved equivocal because of difficulties in distinguishing between direct effects on T-cell recognition and indirect effects resulting from alteration of binding to class II. For example, amino-terminal truncations of SEB abrogated T-cell stimulation whereas carboxy-terminal truncation of SEA stopped its mitogenic activity. The most comprehensive study to date, accounting for both enterotoxin binding to class II and enterotoxin interactions with the TCR, identified two functionally important regions for SEB binding to TCR. Although the amino-acid sequences of *staphylococcal enterotoxins A* and E are 82% identical, they activate T cells bearing different V beta elements. We have assayed the binding of cells coated with these enterotoxins to soluble secreted TCR beta-chain protein and find that V beta 3 binds enterotoxin A but

not E, whereas V beta 11 binds enterotoxin but not A. To map the amino-acid residues responsible for these different binding specificities, we prepared a series of hybrids between the two staphylococcal enterotoxins. We report that just two amino-acid residues near the carboxy terminus of the enterotoxins are responsible for the discrimination between these molecules by V beta 3 and V beta 11.(ABSTRACT TRUNCATED AT 250 WORDS)

CT Amino Acid Sequence
Animals
Binding Sites
Cells, Cultured
*Enterotoxins: ME, metabolism
Histocompatibility Antigens Class II: ME, metabolism
Lymph Nodes: IM, immunology
Lymphocyte Activation
Macromolecular Substances
Mice
Mice, Inbred C57BL
Molecular Sequence Data
Polymerase Chain Reaction
Protein Hybridization
*Receptors, Antigen, T-Cell: ME, metabolism
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.
Spleen: IM, immunology
Staphylococcus aureus
*T-Lymphocytes: IM, immunology

RN 39424-53-8 (enterotoxin B, staphylococcal)

CN 0 (Enterotoxins); 0 (Histocompatibility Antigens Class II); 0 (Macromolecular Substances); 0 (Receptors, Antigen, T-Cell)

L30 ANSWER 23 OF 34 MEDLINE on STN

ACCESSION NUMBER: 90132576 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 2533245

TITLE: Staphylococcus aureus bacteriophages mediating the simultaneous lysogenic conversion of beta-lysin, staphylokinase and enterotoxin A: molecular mechanism of triple conversion.

AUTHOR: Coleman D C; Sullivan D J; Russell R J; Arbuthnott J P; Carey B F; Pomeroy H M

CORPORATE SOURCE: Department of Microbiology, University of Dublin, Trinity College, Republic of Ireland.

SOURCE: Journal of general microbiology, (1989 Jun) Vol. 135, No. 6, pp. 1679-97.
Journal code: 0375371. ISSN: 0022-1287.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199003

ENTRY DATE: Entered STN: 28 Mar 1990
Last Updated on STN: 3 Mar 2000
Entered Medline: 8 Mar 1990

AB A new group of serotype F bacteriophages of Staphylococcus aureus has been found which mediates the simultaneous triple-lysogenic conversion of enterotoxin A, staphylokinase and beta-lysin. The phages were recovered fro methicillin-resistant strains of S. aureus isolated in Irish hospitals between 1971 and 1988 and from strain PS42-D, which has been used as the propagating strain for the S. aureus typing phage 42D since before 1965. The molecular mechanism of triple conversion mediated by three of these phages was determined by molecular cloning, restriction endonuclease site mapping and

hybridization analysis, and compared with the mechanism of beta-lysin and staphylokinase conversion mediated by the serotype F, double-converting phase phi 13. THe genetic determinants mediating expression of enterotoxin A (entA) and staphylokinase (sak) were cloned from the DNA of the triple-converting phage and expression of the cloned determinants detected in Escherichia coli and S. aureus. The entA and sak determinants were closely linked in the phage DNA adjacent to the phage attachment site (attP) in each case and furthermore, the sak determinant of phage phi 13 was also located near its attP. The restriction maps of the entA-, sak- and attP-containing DNA regions of the three triple-converting phages were very similar to each other and to the corresponding sak- and attP- containing DNA region of phage phi 13. ***Hybridization*** analysis using a cloned beta-lysin determinant (hlb) and cloned attP-containing DNA fragments as probes demonstrated that beta-lysin conversion mediated by the triple-converting phages and phage phi 13 was caused by insertional inactivation of the chromosomally encoded hlb determinant by orientation-specific integration of phage DNA following lysogenization.

CT *Antimicrobial Cationic Peptides
Attachment Sites, Microbiological
*Bacterial Toxins
Blood Proteins
Cross Infection: MI, microbiology
DNA, Recombinant
DNA, Viral: GE, genetics
Enterotoxins: BI, biosynthesis
*Enterotoxins: GE, genetics
Gene Expression Regulation, Bacterial
Gene Expression Regulation, Viral
Genes, Bacterial
Genes, Viral
Humans
*Lysogeny
Metalloendopeptidases: BI, biosynthesis
*Metalloendopeptidases: GE, genetics
Protein Biosynthesis
*Proteins: GE, genetics
Research Support, Non-U.S. Gov't
*Sphingomyelin Phosphodiesterase
Staphylococcal Infections: MI, microbiology
Staphylococcus Phages: GE, genetics
*Staphylococcus Phages: IP, isolation & purification
Staphylococcus Phages: PH, physiology
*Staphylococcus aureus: GE, genetics
Staphylococcus aureus: IP, isolation & purification
Staphylococcus aureus: PY, pathogenicity
Viral Structural Proteins: GE, genetics
Virulence

RN ***37337-57-8 (enterotoxin A, Staphylococcal)***

CN 0 (Antimicrobial Cationic Peptides); 0 (Bacterial Toxins); 0 (Blood Proteins); 0 (DNA, Recombinant); 0 (DNA, Viral); 0 (Enterotoxins); 0 (Proteins); 0 (Viral Structural Proteins); 0 (beta lysin, human); EC 3.1.4.12 (Sphingomyelin Phosphodiesterase); EC 3.1.4.12 (hlb protein, Staphylococcus aureus); EC 3.4.24 (Metalloendopeptidases); EC 3.4.24.29 (auR protein, Staphylococcus aureus)

L30 ANSWER 24 OF 34 MEDLINE on STN
ACCESSION NUMBER: 89110043 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 2492328
TITLE: Thyrotropin: an endogenous regulator of the in vitro immune response.

AUTHOR: Kruger T E; Smith L R; Harbour D V; Blalock J E
CORPORATE SOURCE: Department of Physiology and Biophysics, University of Alabama, Birmingham 35294.
CONTRACT NUMBER: CA13148 (NCI)
DK38024 (NIDDK)
SOURCE: Journal of immunology (Baltimore, Md. : 1950), (1989 Feb 1) Vol. 142, No. 3, pp. 744-7.
Journal code: 2985117R. ISSN: 0022-1767.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 198903
ENTRY DATE: Entered STN: 8 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 1 Mar 1989

AB We have previously shown that thyrotropin (TSH), which is produced by lymphocytes in response to the T cell mitogen ***staphylococcal enterotoxin A***, enhances in vitro antibody production to T cell-dependent and independent Ag (SRBC and trinitrophenylated Brucella abortus [BA-TPN], respectively) as determined by a direct plaque-forming cell assay. As a result of these studies, experiments were designed to examine the possible immunoregulatory function of thyrotropin-releasing hormone (TRH) on the in vitro antibody response to the T cell-independent Ag BA-TNP. Our studies demonstrate that TRH at very low concentrations (pM) enhances the in vitro plaque-forming cell response to BA-TNP and also induces splenocyte production of TSH. Other hypothalamic-releasing factors were without effect. This enhancement effect by TRH was specifically blocked by rabbit antisera to the TSH-beta subunit, whereas addition of normal rabbit sera had no effect. These data suggest that TRH specifically enhances the in vitro antibody response via production of immunoreactive TSH.

CT *Adjuvants, Immunologic: PH, physiology
Animals
*Antibody Formation: DE, drug effects
Binding Sites, Antibody
Binding, Competitive
Brucella abortus: IM, immunology
Hemolytic Plaque Technique
Immune Sera: PD, pharmacology
Mice
Mice, Inbred C57BL
Nucleic Acid Hybridization
RNA, Messenger: IP, isolation & purification
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.
Spleen
Thyrotropin: BI, biosynthesis
Thyrotropin: IM, immunology
*Thyrotropin: PH, physiology
Thyrotropin-Releasing Hormone: PH, physiology
Trinitrobenzenes: IM, immunology

RN 24305-27-9 (Thyrotropin-Releasing Hormone); 9002-71-5 (Thyrotropin)
CN 0 (Adjuvants, Immunologic); 0 (Binding Sites, Antibody); 0 (Immune Sera); 0 (RNA, Messenger); 0 (Trinitrobenzenes)

L30 ANSWER 25 OF 34 MEDLINE on STN
ACCESSION NUMBER: 88257005 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 3384800
TITLE: Cloning and nucleotide sequence of the type E staphylococcal enterotoxin gene.

AUTHOR: Couch J L; Soltis M T; Betley M J
CORPORATE SOURCE: Department of Bacteriology, University of Wisconsin-Madison 53706.
CONTRACT NUMBER: AI23036 (NIAID)
SOURCE: Journal of bacteriology, (1988 Jul) Vol. 170, No. 7, pp. 2954-60.
Journal code: 2985120R. ISSN: 0021-9193.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-M21319
ENTRY MONTH: 198808
ENTRY DATE: Entered STN: 8 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 4 Aug 1988

AB The gene for staphylococcal enterotoxin type E (entE) was cloned from Staphylococcus aureus into plasmid vector pBR322 and introduced into Escherichia coli. ***A staphylococcal enterotoxin*** type E-producing E. coli strain was isolated. The complete nucleotide sequence of the cloned structural entE gene and the N-terminal amino acid sequence of mature staphylococcal enterotoxin type E were determined. The entE gene contained 771 base pairs that encoded a protein with a molecular weight of 29,358 which was apparently processed to a mature extracellular form with a molecular weight of 26,425. DNA sequence comparisons indicated that ***staphylococcal enterotoxins*** type E and ***A*** are closely related. There was 84% nucleotide sequence homology between entE and the gene for ***staphylococcal enterotoxin*** type ***A***; these genes encoded protein products that had 214 (83%) homologous amino acid residues (mature forms had 188 [82%] homologous amino acid residues).

CT Amino Acid Sequence
Base Sequence
Cloning, Molecular
DNA, Bacterial: GE, genetics
*Enterotoxins: GE, genetics
*Genes
Genes, Bacterial
Molecular Sequence Data
Nucleic Acid Hybridization
Research Support, U.S. Gov't, Non-P.H.S.
Research Support, U.S. Gov't, P.H.S.
Sequence Homology, Nucleic Acid
*Staphylococcus aureus: GE, genetics
RN ***37337-57-8 (enterotoxin A, Staphylococcal)***
CN 0 (DNA, Bacterial); 0 (Enterotoxins); 0 (enterotoxin E, Staphylococcal)

L30 ANSWER 26 OF 34 MEDLINE on STN
ACCESSION NUMBER: 84298104 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 6089183
TITLE: ***Staphylococcal enterotoxin A*** gene is associated with a variable genetic element.
AUTHOR: Betley M J; Lofdahl S; Kreiswirth B N; Bergdoll M S; Novick R P
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1984 Aug) Vol. 81, No. 16, pp. 5179-83.
Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 198410
ENTRY DATE: Entered STN: 20 Mar 1990
Last Updated on STN: 20 Mar 1990
Entered Medline: 3 Oct 1984

AB The genetic determinant of ***Staphylococcus*** aureus ***enterotoxin A*** (SEA) has been cloned in pBR322 in Escherichia coli and found to be expressed and secreted into the periplasmic space in that organism. The SEA gene (entA) is within a 2.5-kilobase-pair HindIII fragment that is part of a discrete genetic element 8-12 kilobase pairs in length. This entA element has a standard chromosomal location [between the purine (pur) and isoleucine-valine (ilv) markers] in most S. aureus strains. In some strains it is unlinked to pur-ilv. However, its internal structure is conserved at different locations. Some naturally occurring SEA-nonproducer (EntA-) strains lack the entire entA element, and one instance of its spontaneous loss is reported. Other naturally occurring strains have EntA- structural variants of the element at the same pur-ilv location at which the intact element is most commonly found. Some of these strains are EntA-, others are EntA+; the latter have a second, unlinked copy of the element containing their functional entA gene. These results suggest that entA is associated with a structurally unstable, possibly mobile, discrete genetic element.

CT Comparative Study
DNA Restriction Enzymes
*Enterotoxins: GE, genetics
Escherichia coli: GE, genetics
*Genes
*Genes, Bacterial
Genotype
Nucleic Acid Hybridization
Plasmids
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, Non-P.H.S.
Species Specificity
*Staphylococcus aureus: GE, genetics

RN ***37337-57-8 (enterotoxin A, Staphylococcal)***
CN 0 (Enterotoxins); EC 3.1.21 (DNA Restriction Enzymes)

L30 ANSWER 27 OF 34 MEDLINE on STN
ACCESSION NUMBER: 82196887 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 6176945
TITLE: Molecular cloning of human immune interferon cDNA and its expression in eukaryotic cells.
AUTHOR: Devos R; Cheroutre H; Taya Y; Degrave W; Van Heuverswyn H; Fiers W
SOURCE: Nucleic acids research, (1982 Apr 24) Vol. 10, No. 8, pp. 2487-501.
Journal code: 0411011. ISSN: 0305-1048.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-J00219
ENTRY MONTH: 198207
ENTRY DATE: Entered STN: 17 Mar 1990
Last Updated on STN: 17 Mar 1990
Entered Medline: 19 Jul 1982

AB Starting with mRNA derived from ***Staphylococcal enterotoxin A*** induced human splenocytes, dsDNA was synthesized and inserted into unique BamHI site of the eukaryotic expression vector pSV529 (1). A recombinant plasmid containing human immune interferon (IFN-gamma) cDNA was identified by ***hybridization*** of

plasmid inserted DNA bound onto nitrocellulose filters with mRNA derived from SEA-induced splenocytes, translation of the eluted RNA in Xenopus laevis oocytes and assaying for IFN activity. Plasmids containing the entire human IFN-gamma cDNA sequence were identified by colony ***hybridization*** and were sequenced. A unique coding region was identified which predicted a protein of 166 amino acids, the 20 N-terminal amino acids of which presumably represent a signal peptide. After transfection of monkey cells with plasmid DNA isolated from one of the recombinant clones (pHIIF-SV-gamma 1), IFN was excreted into the culture medium. This IFN was not distinguishable from human IFN-gamma by serological criteria or by cell target species specificity.

CT Check Tags: Female
Amino Acid Sequence
Animals
Base Sequence
Cloning, Molecular
*DNA: ME, metabolism
Humans
*Interferons: GE, genetics
*Lymphocytes: IM, immunology
Nucleic Acid Hybridization
Oocytes: ME, metabolism
Plasmids
*Protein Biosynthesis
*RNA, Messenger: GE, genetics
Spleen: IM, immunology
*Transcription, Genetic
Xenopus

RN 9007-49-2 (DNA); 9008-11-1 (Interferons)
CN 0 (RNA, Messenger)

L30 ANSWER 28 OF 34 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 9

ACCESSION NUMBER: 93248857 EMBASE Full-text
DOCUMENT NUMBER: 1993248857
TITLE: Novel oligonucleotide probes for identification of enterotoxigenic Staphylococcus aureus.
AUTHOR: Tsen H.-Y.; Yang R.-Y.; Huang F.-Y.
CORPORATE SOURCE: Department of Food Science, National Chung-Hsing University, Taichung,Taiwan 400, Taiwan,Province of China
SOURCE: Journal of Fermentation and Bioengineering, (1993) Vol. 76, No. 1, pp. 7-13. .
ISSN: 0922-338X CODEN: JFBIEX
COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 26 Sep 1993
Last Updated on STN: 26 Sep 1993

AB Based on the DNA sequences coded for ***Staphylococcus*** aureus ***enterotoxins*** (SE) **A**, B, C, D and E, oligonucleotides unique to each enterotoxin were synthesized and used as probed for the identification of types A, B, C, D and E enterotoxigenic S. aureus. Probes A1, C1, D1 and E1 encode amino acid 124 (Lys) to 131 (Leu) of SEA, 52 (Asn) to 59 (Lys) of SEC, 26 (Ala) to 33 (Gly) of SED and 15 (Leu) to 21 (Ser) of SEE, respectively. Probes A2, B2, C2 and E2 are the complementary sequences for genes encoding amino acid 189 (Ser) to 196 (Tyr) of SEA, amino acid 232 (Val) to 239 (Lys) of SEB, amino acid 122 (His) to 129 (Glu) of SEC and amino acid 161 (His) to 166 (Leu) of SEE, respectively. The ***hybridization*** specificities for these oligonucleotide probes were confirmed by colony ***hybridization*** with standard isolates of

enterotoxigenic S. aureus and some other bacterial strains. Despite the high degree of homology among these S. aureus enterotoxin genes, each probe allows specific identification with total discrimination from other types of enterotoxin genes. DNA from non-enterotoxigenic S. aureus or from non-S. aureus isolates does not interfere with the ***hybridization*** result. In addition, probes designed for SEE gene detection allow discrimination of SEE strains that, when assayed with ***a staphylococcal enterotoxin A***, B, C, D detection kit by reversed passive latex agglutination (SET-RPLA), would be grouped together with enterotoxin A producing strains. When these oligonucleotide probes were used for a survey of enterotoxigenic types of S. aureus isolated from frozen foods, the results showed that SEA, SEB, and SEAB were the major enterotoxigenic types.

CT Medical Descriptors:
*bacterium identification
*staphylococcus aureus
article
latex agglutination test
nonhuman
Drug Descriptors:
*oligonucleotide

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ACCESSION NUMBER: 2003302500 EMBASE Full-text
TITLE: Plasticity of IL-2 and IL-2 receptor chains in rat lymphoid tissues in situ after stimulation with ***staphylococcal enterotoxin A.***
AUTHOR: Bette M.; Geisler T.; Fairless R.; Romeo H.; Schafer M.K.-H.; Weihe E.
CORPORATE SOURCE: M. Bette, Department of Molecular Neuroscience, Inst. of Anatomy and Cell Biology, Philipps University, Robert-Koch Street 8, Marburg 35033, Germany. bette@mailer.uni-marburg.de
SOURCE: Cytokine, (21 Jun 2003) Vol. 22, No. 6, pp. 157-167. .
Refs: 45
ISSN: 1043-4666 CODEN: CYTIE
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 14 Aug 2003
Last Updated on STN: 14 Aug 2003

AB Although the effects of mitogens on the synthesis of interleukin-2 (IL-2) and IL-2 receptor (IL-2r) have been described, a detailed in situ analysis of the spatio-temporal changes of the expression of the IL-2 gene and the three IL-2r components in lymphoid tissues is still missing. Therefore, we analyzed the IL-2 and IL-2r expression after ***a staphylococcal enterotoxin A*** (SEA)-induced T cell activation on a cellular and anatomical basis in the Wistar rat. SEA caused a rapid induction of IL-2 mRNA in T cells of spleen, lymph node, and thymus, followed by the appearance of high systemic IL-2 serum levels (5 ng/ml), and a significant increase of CD25 on CD4(+) and CD8(+) lymphocytes. The histotopographic analysis of the IL-2r chains revealed a strong upregulation of IL-2r alpha (α) and IL-2r beta (β) mRNAs in similar T cell specific compartments of spleen, lymph node, and thymus as seen for IL-2 mRNA. The abundant constitutive expression of IL-2r gamma (γ) mRNA was unaffected by SEA. The parallel upregulation of IL-2, IL-2rα, and β chains in conjunction with the continuous presence of the IL-2rγ chain predominantly in T cell

regions of immune organs suggests that the biological effects of IL-2 are essentially limited to T cells, at least after superantigen stimulation.

CT Medical Descriptors:
*plasticity
*cytokine production
*lymphoid tissue
gene expression
T lymphocyte activation
gene induction
spleen
lymph node
thymus
blood analysis
T lymphocyte
lymphocyte count
gene expression regulation
protein localization
immune system
in situ hybridization
nonhuman
male
rat
controlled study
animal tissue
animal cell
article
nucleotide sequence
priority journal
Drug Descriptors:
*interleukin 2 receptor
*interleukin 2
Staphylococcus enterotoxin A
*interleukin 2alpha receptor
*interleukin 2beta receptor
*interleukin 2gamma receptor
messenger RNA
superantigen
unclassified drug

RN (interleukin 2) 85898-30-2; (***Staphylococcus enterotoxin A***) 37337-57-8

GEN GENBANK M15768 referred number; GENBANK M22899 referred number; GENBANK M55049 referred number; GENBANK X04310 referred number; GENBANK AI178808 referred number; GENBANK M55050 referred number

L30 ANSWER 30 OF 34 EMBASE

ACCESSION NUMBER: 93117135 EMBASE Full-text
DOCUMENT NUMBER: 1993117135
TITLE: The selective ablation of interleukin 2-producing cells isolated from transgenic mice.
AUTHOR: Minasi L.-A.E.; Kamogawa Y.; Carding S.; Bottomly K.; Flavell R.A.
CORPORATE SOURCE: Section of Immunology, Yale University School of Medicine, P.O. Box 3333,New Haven, CT 06510, United States
SOURCE: Journal of Experimental Medicine, (1993) Vol. 177, No. 5, pp. 1451-1459. .
ISSN: 0022-1007 CODEN: JEMEAV
COUNTRY: United States
DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 004 Microbiology
022 Human Genetics
026 Immunology, Serology and Transplantation
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 30 May 1993
Last Updated on STN: 30 May 1993

AB To better understand the requirement for interleukin 2 (IL-2) in specific immune responses, we have established the use of cell ablation to selectively eliminate T cells that produce IL-2. To accomplish this we have generated transgenic mice that express the herpes simplex virus 1-thymidine kinase (HSV-TK) gene under the transcriptional control of the murine IL-2 promoter that renders IL-2-producing cells sensitive to the cytotoxic effects of the antiviral drug ganciclovir (GANC). HSV-TK activity was specifically expressed in activated T cells from transgenic mice. When CD4 T cells from transgenic mice were stimulated with the superantigen ***staphylococcal enterotoxin A*** (SEA) in the presence of GANC, proliferation and IL-2 production were almost completely inhibited and the activated CD4+Vβ3+ T cell population, eliminated. Proliferation was not restored by adding IL-2, showing that most proliferating cells are not bystander cells. In contrast, the proliferative response to concanavalin A (Con A) was only partially inhibited by treatment of CD4 T cells with GANC, although the efficiency of eliminating IL-2- producing cells was shown to be comparable with that achieved using SEA. This suggests that a portion of the proliferative response to Con A occurs via an alternative pathway not requiring IL-2 synthesis and release.

CT Medical Descriptors:
*cytotoxic t lymphocyte
*t lymphocyte activation
animal cell
animal experiment
antiviral activity
article
controlled study
drug cytotoxicity
flow cytometry
gene expression
growth regulation
herpes simplex virus 1
in situ hybridization
lymphocyte proliferation
mouse
nonhuman
priority journal
transcription regulation
transgenic mouse
virus transcription
Drug Descriptors:
*cd4 antigen: EC, endogenous compound
*ganciclovir: TO, drug toxicity
*interleukin 2: EC, endogenous compound
concanavalin a

RN (ganciclovir) 82410-32-0; (interleukin 2) 85898-30-2; (concanavalin a) 11028-71-0

L30 ANSWER 31 OF 34 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:554329 BIOSIS Full-text
DOCUMENT NUMBER: PREV200510342935
TITLE: Subinhibitory cerulenin inhibits staphylococcal exoprotein production by blocking transcription rather than by

blocking secretion.

AUTHOR(S): Adhikari, Rajan P.; Novick, Richard P. [Reprint Author]
CORPORATE SOURCE: NYU, Med Ctr, Skirball Inst Biomol Med, Mol Pathogenesis Program, 540 1st Ave, New York, NY 10016 USA
novick@saturn.med.nyu.edu

SOURCE: Microbiology (Reading), (SEP 2005) Vol. 151, No. Part 9, pp. 3059-3069.
ISSN: 1350-0872.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Dec 2005
Last Updated on STN: 7 Dec 2005

AB Cerulenin is an antibiotic that inhibits fatty acid synthesis by covalent modification of the active thiol of the chain-elongation subtypes of beta-ketoacyl-acyl carrier protein synthase. It also inhibits other processes that utilize essential thiols. Cerulenin has been widely reported to block protein secretion at sub-MIC levels, an effect that has been postulated to represent interference with membrane function through interference with normal fatty acid synthesis. This study confirms the profound reduction in extracellular proteins caused by low concentrations of the antibiotic, and shows by Northern blot ***hybridization*** that this reduction is due to interference with transcription. By exchanging promoters between entB, a gene that is inhibited by cerulenin, and entA, a gene that is not, it was also shown that the antibiotic does not block secretion. Subinhibitory concentrations of cerulenin were also found to block transcriptional activation of at least two regulatory determinants, agr and sae, that function by signal transcluction. Interference with the activation of these and other regulatory determinants probably accounts for much of the inhibitory effect on exoprotein production of sub-MIC concentrations of cerulenin.

CC Genetics - General 03502
Biochemistry studies - Lipids 10066
Biophysics - Membrane phenomena 10508
Pathology - Therapy 12512
Pharmacology - General 22002
Morphology and cytology of bacteria 30500
Physiology and biochemistry of bacteria 31000
Genetics of bacteria and viruses 31500
Chemotherapy - General, methods and metabolism 38502
Chemotherapy - Antibacterial agents 38504

IT Major Concepts
Pharmacology; Molecular Genetics (Biochemistry and Molecular Biophysics); Membranes (Cell Biology)

IT Parts, Structures, & Systems of Organisms
membrane

IT Chemicals & Biochemicals
beta-ketoacyl-acyl carrier protein synthase; fatty acid: synthesis; cerulenin: antibacterial-drug, antiinfective-drug, pharmacodynamics

ORGN Classifier
Enterobacteriaceae 06702
Super Taxa
Facultatively Anaerobic Gram-Negative Rods; Eubacteria; Bacteria; Microorganisms
Organism Name
Escherichia coli (species): strain-DH5-alpha
Taxa Notes
Bacteria, Eubacteria, Microorganisms

ORGN Classifier
Micrococcaceae 07702
Super Taxa
Gram-Positive Cocci; Eubacteria; Bacteria; Microorganisms

Organism Name
Staphylococcus aureus (species)
Taxa Notes
Bacteria, Eubacteria, Microorganisms
RN 9077-10-5 (beta-ketoacyl-acyl carrier protein synthase)
17397-89-6 (cerulenin)
GEN Staphylococcus aureus sae gene (Micrococcaceae); Staphylococcus aureus entA gene [***Staphylococcus*** aureus ***enterotoxin A*** gene] (Micrococcaceae); Staphylococcus aureus entB gene [Staphylococcus aureus enterotoxin B gene] (Micrococcaceae); Staphylococcus aureus agr gene [Staphylococcus aureus antigen related gene] (Micrococcaceae)

L30 ANSWER 32 OF 34 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2003:518686 BIOSIS Full-text
DOCUMENT NUMBER: PREV200300520297
TITLE: Detection of ***Staphylococcus*** aureus ***enterotoxin A*** and B genes using a hand-held electrochemical sensor.
AUTHOR(S): Ait-Ichou, M. [Reprint Author]; Henkens, R.; Sultana, A. [Reprint Author]; Ulrich, R. G. [Reprint Author]; Ibrahim, M. S. [Reprint Author]
CORPORATE SOURCE: United States Army Medical Research Institute of Infectious Diseases, Fort Detrick, MD, USA
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (2003) Vol. 103, pp. C-211. http://www.asmusa.org/mtgsrc/generalmeeting.htm. cd-rom. Meeting Info.: 103rd American Society for Microbiology General Meeting. Washington, DC, USA. May 18-22, 2003. American Society for Microbiology. ISSN: 1060-2011 (ISSN print).
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Nov 2003
Last Updated on STN: 5 Nov 2003
AB We developed two electrochemical PCR assays for detecting enterotoxin A and B genes (SEA, SEB) of Staphylococcus aureus. The assays are based on PCR amplification of the target sequences with biotinylated primers, ***hybridization*** of the biotin-labeled PCR products to a fluorescein-labeled probe, followed by immobilization of the hybrid to streptavidin-coated wells and detection with horse radish peroxidase (HRP)-conjugated anti-fluorescein antibody and HRP substrate on a hand-held electrochemical detector. The detection limit for each assay was approximately 25 copies of the SEA or SEB genes. The assays were evaluated in two blinded studies, each with 81 samples that included genomic and cloned S. aureus DNA and genomic DNA from Alcaligens, Bacillus, Bacteroides, Bordetella, Burkholderia, Clostridium, Comanonas, Enterobacter, Enterococcus, Escherichia, Francisella, Haemophilus, Klebsiella, Listeria, Moraxella, Neisseria, Proteus, Pseudomonas, Salmonella, Serratia, Shigella, Streptococcus, Vibrio and Yersinia species. The SEA assay correctly identified all 25 samples that contained SEA DNA, and the SEB assay correctly identified all 18 samples that contained SEB DNA, i.e., both assays showed 100% sensitivity. Two false positive samples were obtained with the SEA assay and one false positive was obtained with the SEB assay, resulting in 96% specificity for the SEA assay and 98% specificity for the SEB assay. These results demonstrate the feasibility of performing probe-based detection of PCR products with a hand-held, electrochemical detection device and can provide a viable alternative to standard colorimetric PCR-Enzyme Immuno Assay (EIA). In addition, this electrochemical sensing device can easily be adapted to enzyme-

based protein or ***nucleic*** acid-detection assays, offering a unique platform for both immunological and ***nucleic***-acid-based assays.

CC General biology - Symposia, transactions and proceedings 00520
Genetics - General 03502
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Physiology and biochemistry of bacteria 31000
Genetics of bacteria and viruses 31500

IT Major Concepts
Equipment Apparatus Devices and Instrumentation; Molecular Genetics (Biochemistry and Molecular Biophysics)

IT Chemicals & Biochemicals
DNA; PCR products: biotin-labeled; biotinylated primers; fluorescein-labeled probe; genomic DNA; horse radish peroxidase-conjugated anti-fluorescein antibody

IT Methods & Equipment
colorimetric PCR-enzyme immunoassay: immunologic techniques, laboratory techniques; electrochemical PCR assay: genetic techniques, laboratory techniques; hand-hel electrochemical sensor: laboratory equipment; ***hybridization***: laboratory techniques; streptavidin-coated wells: laboratory equipment

IT Miscellaneous Descriptors
detection limit

ORGN Classifier
Bacteria 05000
Super Taxa
Microorganisms
Organism Name
bacteria (common)
Taxa Notes
Bacteria, Eubacteria, Microorganisms

ORGN Classifier
Micrococcaceae 07702
Super Taxa
Gram-Positive Cocci; Eubacteria; Bacteria; Microorganisms
Organism Name
Staphylococcus aureus (species): pathogen
Taxa Notes
Bacteria, Eubacteria, Microorganisms

GEN Staphylococcus aureus SEA gene [***Staphylococcus*** aureus ***enterotoxin A*** gene] (Micrococcaceae); Staphylococcus aureus SEB gene [Staphylococcus aureus enterotoxin B gene] (Micrococcaceae)

L30 ANSWER 33 OF 34 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1999:540501 BIOSIS Full-text
DOCUMENT NUMBER: PREV199900540501
TITLE: ***Staphylococcal enterotoxin A*** is ***a*** potent T-cell activator in the wistar rat.
AUTHOR(S): Bette, M. [Reprint author]; Geisler, T. [Reprint author]; Romeo, H. [Reprint author]; Schaefer, M. K.-H. [Reprint author]; Weihe, E. [Reprint author]
CORPORATE SOURCE: Institute of Anatomy and Cell Biology, Department of Molecular Neuroimmunology, Philipps-University Marburg, Marburg, Germany
SOURCE: Neuroimmunomodulation, (Nov.-Dec., 1999) Vol. 6, No. 6, pp. 458. print.
Meeting Info.: 4th International Congress of the International Society for Neuroimmunomodulation. Lugano, Switzerland. September 29-October 2, 1999. International

Society for Neuroimmunomodulation.
ISSN: 1021-7401.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Dec 1999
Last Updated on STN: 10 Dec 1999
CC Toxicology - General and methods 22501
Cytology - Animal 02506
Genetics - Animal 03506
Biochemistry studies - General 10060
Blood - General and methods 15001
Immunology - General and methods 34502
Bacteriology, general and systematic 30000
Endocrine - General 17002
Biophysics - General 10502
General biology - Symposia, transactions and proceedings 00520
IT Major Concepts
Immune System (Chemical Coordination and Homeostasis); Molecular Genetics (Biochemistry and Molecular Biophysics); Toxicology
IT Parts, Structures, & Systems of Organisms
T cell: blood and lymphatics, immune system, activation
IT Chemicals & Biochemicals
IL-2 receptor [interleukin-2 receptor]: lymph node, messenger RNA expression, spleen, thymus; IL-2 [interleukin-2]: lymph node, spleen, thymus, messenger RNA expression; ***Staphylococcal enterotoxin A***
IT Methods & Equipment
in-situ ***hybridization***: genetic method; Northern blot analysis: analytical method
IT Miscellaneous Descriptors
Meeting Abstract; Meeting Poster
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Wistar rat: adult
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

L30 ANSWER 34 OF 34 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 1994-264032 [32] WPIX
CROSS REFERENCE: 1993-258372; 1997-108644; 1998-062375; 1998-311408; 1998-386989; 1998-387016; 1998-530940; 1999-023535; 1999-080500; 1999-204041; 1999-264102; 2000-022778; 2000-270138; 2000-542449; 2001-060087; 2002-009992; 2003-900201
DOC. NO. CPI: C1994-120831 [32]
DOC. NO. NON-CPI: N1994-207712 [32]
TITLE: New antibodies specific for ICAM-related protein - and related hybridomas, anti-idiotypic antibodies, ICAM-R peptide(s), rodent ICAM-R DNA etc, useful in modulating inter-cellular adhesion in cases of inflammation etc
DERWENT CLASS: B04; D16; P14; S03
INVENTOR: GALLATIN W M; VAZEUX R
PATENT ASSIGNEE: (GALL-I) GALLATIN W M; (ICOS-N) ICOS CORP; (VAZE-I) VAZEUX R

COUNTRY COUNT: 19

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 9417100	A1	19940804	(199432)*	EN	176	[15]
EP 643728	A1	19950322	(199516)	EN		
JP 07506007	W	19950706	(199535)	JA		
EP 643728	A4	19950719	(199617)	EN		
US 5770686	A	19980623	(199832)	EN		
US 5869262	A	19990209	(199913)	EN		
US 6087130	A	20000711	(200037)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9417100	A1	WO 1993-US7367	19930805
US 5770686	A CIP of	US 1992-827689	19920127
US 5869262	A CIP of	US 1992-827689	19920127
US 6087130	A CIP of	US 1992-827689	19920127
US 5770686	A CIP of	US 1992-889724	19920526
US 5869262	A CIP of	US 1992-889724	19920526
US 6087130	A CIP of	US 1992-889724	19920526
US 5770686	A CIP of	US 1992-894061	19920605
US 5869262	A CIP of	US 1992-894061	19920605
US 6087130	A CIP of	US 1992-894061	19920605
EP 643728	A4	EP 1993-919890	
US 5770686	A CIP of	US 1993-9266	19930122
US 5869262	A CIP of	US 1993-9266	19930122
US 6087130	A CIP of	US 1993-9266	19930122
US 5770686	A Cont of	WO 1993-US787	19930126
US 6087130	A Cont of	WO 1993-US787	19930126
EP 643728	A1	EP 1993-919890	19930805
US 5770686	A Cont of	US 1993-102852	19930805
US 5869262	A CIP of	US 1993-102852	19930805
US 6087130	A Cont of	US 1993-102852	19930805
EP 643728	A1	WO 1993-US7367	19930805
JP 07506007	W	WO 1993-US7367	19930805
US 5869262	A Cont of	WO 1993-US7367	19930805
JP 07506007	W	JP 1994-516977	19930805
US 5869262	A Div Ex	US 1994-286754	19940805
US 5770686	A Div Ex	US 1995-425870	19950420
US 6087130	A Cont of	US 1995-425870	19950420
US 5869262	A	US 1995-473503	19950607
US 5770686	A	US 1995-474368	19950607
US 6087130	A	US 1997-863790	19970527

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 643728 A1	Based on	WO 9417100 A
JP 07506007 W	Based on	WO 9417100 A

PRIORITY APPLN. INFO: WO 1993-US787 19930126
US 1993-9266 19930122
US 1992-827689 19920127
US 1992-889724 19920526

US 1992-894061 19920605
WO 1993-US7367 19930805
US 1993-102852 19930805
US 1994-286754 19940805
US 1995-425870 19950420
US 1995-473503 19950607
US 1997-863790 19970527

AN 1994-264032 [32] WPIX
CR 1993-258372; 1997-108644; 1998-062375; 1998-311408; 1998-386989; 1998-387016; 1998-530940; 1999-023535; 1999-080500; 1999-204041; 1999-264102; 2000-022778; 2000-270138; 2000-542449; 2001-060087; 2002-009992; 2003-900201
AB WO 1994017100 A1 UPAB: 20050824
(Poly)peptides (I), especially antibodies, that bind to ICAM-R (related) protein (a 547 amino acid polypeptide reproduced in the specification) are new.

USE - (I) can modify ICAM-R binding to cells (and thus ICAM-R effector functions, especially in the immune system); modulate (especially block) lymphocyte activation by ***Staphylococcus enterotoxin A*** (SEA) or alloantigens; can serve as immunogens, for purifying ICAM-R, to identify cells expressing ICAM-R and for assaying ICAM-R in body fluids. AAb can also be used to modulate the immune response. DNA encoding ICAM-R can be used in ***hybridisation*** tests to identify ICAM-R producing cells, while antisense sequences can regulate expression. Rodents (item 5) are used in vivo studies on activity of ICAM-R and its modulators. ICAM-R related peptides can be used to treat or monitor inflammation associated with a (non-specific immune response (e.g. adult respiratory distress syndrome, reperfusion injury, ulcerative colitis, psoriasis, etc.) also asthma, tumour growth and metastasis, and viral (including HIV) infections. Since ICAM-R is expressed in vascular endothelium association with mammary carcinoma and melanoma, (I) may also be used for specific drug delivery to these tissues.

Member(0003)
ABEQ JP 07506007 W UPAB 20050824
(Poly)peptides (I), esp. antibodies, that bind to ICAM-R (related) protein (a 547 amino acid polypeptide reproduced in the specification) are new.

USE - (I) can modify ICAM-R binding to cells (and thus ICAM-R effector functions, esp. in the immune system); modulate (esp. block) lymphocyte activation by ***Staphylococcus enterotoxin A*** (SEA) or alloantigens; can serve as immunogens, for purifying ICAM-R, to identify cells expressing ICAM-R and for assaying ICAM-R in body fluids. AAb can also be used to modulate the immune response. DNA encoding ICAM-R can be used in ***hybridisation*** tests to identify ICAM-R producing cells, while antisense sequences can regulate expression. Rodents (item 5) are used in vivo studies on activity of ICAM-R and its modulators. ICAM-R related peptides can be used to treat or monitor inflammation associated with a (non-specific immune response (e.g. adult respiratory distress syndrome, reperfusion injury, ulcerative colitis, psoriasis, etc.) also asthma, tumour growth and metastasis, and viral (including HIV) infections. Since ICAM-R is expressed in vascular endothelium association with mammary carcinoma and melanoma, (I) may also be used for specific drug delivery to these tissues.

Member(0005)
ABEQ US 5770686 A UPAB 20050824
(Poly)peptides (I), esp. antibodies, that bind to ICAM-R (related) protein (a 547 amino acid polypeptide reproduced in the specification) are new.

USE - (I) can modify ICAM-R binding to cells (and thus ICAM-R effector functions, esp. in the immune system); modulate (esp. block)

lymphocyte activation by ***Staphylococcus enterotoxin A*** (SEA) or alloantigens; can serve as immunogens, for purifying ICAM-R, to identify cells expressing ICAM-R and for assaying ICAM-R in body fluids. AAb can also be used to modulate the immune response. DNA encoding ICAM-R can be used in ***hybridisation*** tests to identify ICAM-R producing cells, while antisense sequences can regulate expression. Rodents (item 5) are used in vivo studies on activity of ICAM-R and its modulators. ICAM-R related peptides can be used to treat or monitor inflammation associated with a (non-specific immune response (e.g. adult respiratory distress syndrome, reperfusion injury, ulcerative colitis, psoriasis, etc.) also asthma, tumour growth and metastasis, and viral (including HIV) infections. Since ICAM-R is expressed in vascular endothelium association with mammary carcinoma and melanoma, (I) may also be used for specific drug delivery to these tissues.

Member(0006)
ABEQ US 5869262 A UPAB 20050824
(Poly)peptides (I), esp. antibodies, that bind to ICAM-R (related) protein (a 547 amino acid polypeptide reproduced in the specification) are new.
USE - (I) can modify ICAM-R binding to cells (and thus ICAM-R effector functions, esp. in the immune system); modulate (esp. block) lymphocyte activation by ***Staphylococcus enterotoxin A*** (SEA) or alloantigens; can serve as immunogens, for purifying ICAM-R, to identify cells expressing ICAM-R and for assaying ICAM-R in body fluids. AAb can also be used to modulate the immune response. DNA encoding ICAM-R can be used in ***hybridisation*** tests to identify ICAM-R producing cells, while antisense sequences can regulate expression. Rodents (item 5) are used in vivo studies on activity of ICAM-R and its modulators. ICAM-R related peptides can be used to treat or monitor inflammation associated with a (non-specific immune response (e.g. adult respiratory distress syndrome, reperfusion injury, ulcerative colitis, psoriasis, etc.) also asthma, tumour growth and metastasis, and viral (including HIV) infections. Since ICAM-R is expressed in vascular endothelium association with mammary carcinoma and melanoma, (I) may also be used for specific drug delivery to these tissues.

Member(0007)
ABEQ US 6087130 A UPAB 20050824
(Poly)peptides (I), esp. antibodies, that bind to ICAM-R (related) protein (a 547 amino acid polypeptide reproduced in the specification) are new.
USE - (I) can modify ICAM-R binding to cells (and thus ICAM-R effector functions, esp. in the immune system); modulate (esp. block) lymphocyte activation by ***Staphylococcus enterotoxin A*** (SEA) or alloantigens; can serve as immunogens, for purifying ICAM-R, to identify cells expressing ICAM-R and for assaying ICAM-R in body fluids. AAb can also be used to modulate the immune response. DNA encoding ICAM-R can be used in ***hybridisation*** tests to identify ICAM-R producing cells, while antisense sequences can regulate expression. Rodents (item 5) are used in vivo studies on activity of ICAM-R and its modulators. ICAM-R related peptides can be used to treat or monitor inflammation associated with a (non-specific immune response (e.g. adult respiratory distress syndrome, reperfusion injury, ulcerative colitis, psoriasis, etc.) also asthma, tumour growth and metastasis, and viral (including HIV) infections. Since ICAM-R is expressed in vascular endothelium association with mammary carcinoma and melanoma, (I) may also be used for specific drug delivery to these tissues.